FOOD AND
NUTRITION
TECHNICAL
ASSISTANCE

**Measuring Household
Food Consumption:
Analyzing Data**

Copies of "Measuring Household Food Consumption: A Technical Guide" and the Appendix on analyzing food consumption data can be obtained from:

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February 2000

This document provides information on analyzing food consumption data and should be used with "Measuring Household Food Consumption: A Technical Guide".

Table of Contents: Analyzing Household Food Consumption Data

Appendix 1. Sample Ingredient Codes

Note: Conversion factors were calculated only for ingredients with codes 1 through 301. These products are significant contributors of calories and protein, and were the only foods for which quantity estimates were obtained. (See tables on following pages.)

Basic grains
1. Dry white corn kernel
2. New white corn kernel
3. Tender white corn kernel
4. White corn tortilla
5. White corn on the cob
6. Unhusked white corn on cob
7. Dry yellow corn kernel
8. New yellow corn kernel
9. Tender yellow corn kernel
10. Yellow corn tortilla
11. Yellow corn on the cob
12. Unhusked yellow corn on cob
13. Sorghum kernel
14. Sorghum tortilla
15. Consumption rice
16. Parboiled rice
17. Unhusked rice (granza)   18. Other grain

Legumes
40. Beans in general
41. Red bean
42. Black bean
43. Soy bean
44. Cashew nut
45. Other legume

Other cereals/cereal products
60. Wheat flour
61. Wheat tortilla
62. Pancake mix
63. Whole wheat flour
64. Corn flour
65. Rice flour
66. Other flour
67. Sandwich bread
68. Sweet bread roll
69. Homemade sweet bread
70. Whole wheat bread
71. White bread roll
72. Homemade white bread
73. French bread
74. Other white bread

75. Sweet cracker
76. Salt cracker
77. Corn flakes
78. Oatmeal
79. Thin egg noodles

80. Spaghetti
81. Cannelloni
82. Lasagna
83. Macaroni
84. Shell macaroni
85. Wide noodles
86. Honduran pasta
87. Elbow macaroni
88. Other cereal

Bananas, roots, tubers
100. Ripe banana
101. Green banana
102. Butuco banana
103. Datil banana
104. Green plantain
105. Ripe plantain
106. Potato
107. Cassava
108. Sweet potato
109. Squash (whole)
110. Squash (slice)
111. Other roots, tuber, banana

Milk, dairy products
130. Liquid whole milk
131. Liquid skim milk
132. Evaporated milk
133. Condensed milk
134. Powdered whole milk
135. Powdered skim milk
136. Powdered milk for babies
137. Soy milk for babies
138. Other milk
139. Cream cheese
140. Fresh cheese
141. Hard cheese
142. American processed cheese
143. Parmesan cheese
144. Pepper cheese
145. Quesillo
146. Cuajada
147. Requesón
148. Other cheese
149. Cream 'rala'
150. Cream 'crema'

151. Yellow cream
152. Yogurt
153. Other milk product

Eggs
170. Chicken egg
171. Duck egg
172. Turtle egg
173. Other egg

Meat, poultry, fish, seafood
180. Beef with bone
181. Beef without bone
182. Beef bone (soup)
183. Beef ribs
184. Pork with bone
185. Boneless pork
186. Pork 'tajo'
187. Pork ribs
188. Pork chop
189. Pig feet
190. Liver
191. Kidneys
192. Heart
193. Tongue
194. Tripe with bone
195. Boneless tripe
196. Chicken (general)
197. Chicken breast
198. Chicken thigh/leg
199. Chicken giblets
200. Patio chicken (general)
201. Patio chicken breast
202. Patio chicken thigh/leg
203. Patio chicken giblets
204. Rabbit
205. Baloney (mortadela)
206. Ham
207. Chorizo extremeño (sausage)
208. Hot-dog
209. Copetines (sausage)
210. Longaniza (sausage)
211. Salami
212. Fish filet
213. Whole fish
214. Dried fish
215. Shrimp
216. Crab (river)
217. Crab (ocean)
218. Caracol (shellfish)
219. Canned sardines

220. Other meat, sea food

Fats
240. Veg. shortening
241. Lard (pig)
242. Vegetable oil
243. Other oil
244. Margarine
245. Mayonnaise
246. Other fat

Sugars
260. Refined white sugar
261. Refined brown sugar
262. Raw sugar
263. Sugar cane
264. Honey (bee)
265. Honey (sugar cane)
266. Other sugar

Fruit
300. Avocado
301. Coconut
302. Anona
303. Cherry
304. Peach
305. Strawberry
306. Granada
307. Granadilla
308. Guanábana
309. Guava
310. Lichies
311. Lima
312. Lemon
313. Mamones
314. Tangerine
315. Mango
316. Apple
317. Small apple variety
318. Passion fruit
319. Mazapán
320. Peach
321. Melon
322. Membrillo
323. Raspberry
324. Nance
325. Sweet orange
326. Sour orange
327. Papaya

328. Pear
329. Pineapple
330. Rambután
331. Watermelon
332. Suncuya
333. Tamarind
334. Grapefruit
335. Grapes
336. Zapote
337. Other fruit

Vegetables
360. Garlic
361. Celery
362. Eggplant
363. Broccoli
364. Onion
365. Cauliflower
366. Cilatro (castilla) **cilantro?**
367. Cilantro (pata)
368. Sweet pepper
369. Hot pepper
370. Spinach
371. Unripe red beans
372. Lettuce
373. Malanga
374. Mustard leaves
375. Oregano
376. Pataste
377. Cucumbers
378. Parsley
379. Pipian
380. Radishes
381. Beets
382. Cabbage
383. Tomato
384. Carrot
385. Other vegetable

Other products
400. Achiote
401. Sesame
402. Cinnamon
403. Coffee toasted
404. Coffee bean not toasted
405. Coffe bean unpeeled
406. Broth
407. Bouillon cubes
408. Hot sauce
409. Cocoa
410. Chips
411. Spices
412. Ice cream
413. Juice (boxed)
414. Juice (canned)
415. Ketchup
416. Corn starch
417. Mustard
418. Dried oregano
419. Tomato paste
420. Coagulant
421. Soda
422. Baking soda
423. Salt
424. Tomato sauce
425. Worcestershire sauce
426. Dried soup mix
427. Sweet n Low
428. Vinegar
429. Other misc. prods

Local Dishes
540   Meatballs
541   Rice with shrimp
542   Rice with pork
543   Rice with milk
544   Rice with corn
545   Rice with chicken
546   Rice and beans
547   Cordon blue
548   Chop suey
549   Stew
550   Other local dishes....

Appendix 2. Sample Ingredient Form Codes

Code	Form
0	Raw
1	Boiled
2	Fried
3	Stewed
4	Broiled
5	Baked
6	Ground
7	Juice
8	Soup

Appendix 3. Sample Unit of Measure Codes

1.	Pound		2.	Ounce
3.	Kilogram		4.	Gram
5.	Liter		6.	Milliliter
7.	Unit		8.	Slice, piece
*80.	Tiny loaf	*9.		Small model
*10.	Medium model		*11.	Large model
*81.	Very large model		*12.	Small (rolls/crackers)
*13.	Medium (rolls/crackers)		*14.	Large (rolls/crackers)
15.	Centimeter	16.		Centimeter squared
82.	Centimeter cubed		17.	Gallon
#18.	2 liter Coke bottle		#19.	1 liter Coke bottle
#20.	½ liter Coke bottle	#21.		Small Coke bottle
#22.	Large bottle salsa		#23.	Small bottle salsa
#24.	Large Flor de Caña bottle	#25.		Small Flor de Caña bottle
#26.	Small Ron Botrán bottle	#27.		Large Ron Botrán bottle
#28.	Large vinegar bottle		29.	Liter box of milk
39.	Anega		40.	Arroba
#41.	Bag	#42.		Box
#43.	Truckload		#44.	Canasto
#45.	Carga		#46.	Carretada
47.	Cuartillo		#50.	Gavilla
51.	Mano		52.	Medida
53.	Matate		#54.	Mazo
55.	Medio		#56.	Paca
57.	Palo	58.		Quintal
59.	Racimo		#60.	Sack
61.	Tercio		62.	Man/day
63.	Piece		64.	Other unit of measure
*65.	Tortilla A1		*66.	Tortilla A2
*67.	Tortilla A3		*68.	Tortilla B1
*69.	Tortilla B2		*70.	Tortilla B3
*71.	Tortilla C1		*72.	Tortilla C2
*73.	Tortilla C3		*74.	Tortilla D1
*75.	Tortilla D2		*76.	Tortilla D3
*77.	Tortilla E1		*78.	Tortilla E2
*79.	Tortilla E3		99.	Doesn't know

* Conversion factors not included. Should be calculated when food models are developed prior to field work.

\# Use of these units of measure is not recommended, because they are not standardized. They were included in the list as a second-best solution when the interviewer was unable to collect the information using a standardized units. For example, if a household purchased milk from a producer using a large rum bottle, the interviewer should always ask whether the bottle is available and, if so, ask the respondent to fill it with water to the level it had been filled with milk. The quantity can then be recorded in milliliters. If, however, the bottle is not available, then an appropriate rum bottle code (24-27) can be used.

Appendix 4. Conversion Factors for Common Honduran Foods

The table below presents conversion factors for common foods from a 1994 survey in Honduras. The gross and edible portion weights for the food models are *not* included. Food model weights will be specific to each survey, and calculated at the time that each model is developed (prior to the start of survey field work). The table does include, however, some common units of measure (e.g., arroba, medida), that are unique to the Honduran setting and should not be used in other countries without prior verification that the weights are the same.

The columns in the table contain:
(1)   Ingredient code (see Appendix 2)
(2)   Unit of measure (see Appendix 3)
(3)   Ingredient form in which the quantity is estimated

0	Raw		5	Baked
1	Boiled		6	Soup
2	Fried		7	Juice
3	Stewed		8	Ground/blended
4	Grilled		9	Other

(4)   Edible portion weight, in grams of raw ingredient per 1 unit of unit of measure
(5)   Gross weight, in grams of raw ingredient per 1 unit of unit of measure

Thus the conversion factors include two transformations. All forms of the ingredient are converted to the equivalent in the raw ingredient, and all units of measures are converted to grams.

Two examples based on the table:

The second line in the first column of the table is 001 01 1 00259.00100 00259.00100
   The ingredient is 001 (dry white corn kernel)
   The unit of measure is 01 (pound)
   The form is 1 (boiled)
   The equivalent weight in edible portion of raw white corn kernels is 259.001 grams.
   Since corn kernels do not have any wastage, the equivalent gross weight of raw white corn kernels is also
      259.001 grams.

The first line in the sixth column of the table is 100 07 0 00100.00000 00150.00000
   The ingredient is 100 (ripe banana)
   The unit of measure is 07 (unit)
   The form is 0 (raw)
   The weight of the edible portion of the banana is 100 grams.
   Since the peel of the banana is not consumed, the equivalent gross weight of the banana is 150 grams.

(1- 2 - 3)	(4)	(5)
001 01 0	00453.59250	00453.59250
001 01 1	00259.00100	00259.00100
001 01 8	00480.80805	00480.80805
001 02 0	00028.34950	00028.34950
001 02 1	00016.18700	00016.18700
001 02 8	00030.05047	00030.05047
001 03 1	00571.00000	00571.00000
001 05 0	00907.20000	00907.20000
001 06 0	00000.90720	00000.90320
001 06 1	00000.60400	00000.60400
001 06 8	00000.56699	00000.56699
001 40 0	11339.81300	11339.81300
001 52 0	02267.96200	02267.96200
001 52 1	02267.96200	02267.96200
001 58 0	45358.25000	45359.25000
002 01 0	00453.59250	00453.59250
002 06 0	00000.90320	00000.90320
002 06 1	00000.82790	00000.82790
003 01 0	00453.59250	00453.59250
003 01 8	00480.80805	00480.80805
003 02 0	00028.34950	00028.34950
003 06 0	00001.00000	00001.00000
003 06 1	00000.82790	00000.82790
003 06 8	00000.59430	00000.59430
003 07 0	00100.00000	00100.00000
003 07 1	00057.10000	00057.10000
003 07 8	00100.00000	00100.00000
003 51 0	00500.00000	00500.00000
003 51 8	00500.00000	00500.00000
003 52 0	02267.96200	02267.96200
004 01 0	00316.60757	00316.60757
004 01 1	00316.60757	00316.60757
004 02 1	00019.78790	00019.78790
004 07 0	00023.26660	00023.26660
004 07 1	00023.26660	00023.26660
005 01 8	00216.36359	00216.36359
005 07 0	00100.00000	00100.00000
007 01 0	00453.59250	00453.59250
007 01 1	00259.00100	00259.00100
007 01 8	00480.80805	00480.80805
007 06 0	00000.90720	00000.90720
007 06 1	00000.60400	00000.60400
007 06 8	00000.56699	00000.56699
007 40 0	11339.81300	11339.81300
007 52 0	02267.96200	02267.96200
008 06 0	00001.00000	00001.00000
008 06 1	00000.82790	00000.82790
008 06 8	00000.59430	00000.59430
010 01 0	00316.60757	00316.60757
011 01 0	00204.11660	00204.11660
011 07 4	00100.00000	00100.00000
013 01 0	00453.59250	00453.59250
013 02 0	00028.34950	00028.34950
013 04 0	00001.00000	00001.00000
013 06 0	00000.58060	00000.58060
013 06 1	00000.34840	00000.34840
013 06 8	00000.43550	00000.43550
013 40 0	11339.81300	11339.81300
013 52 0	02267.96200	02267.96200
013 58 0	45358.25000	45359.25000
014 07 0	00023.26660	00023.26660
015 01 0	00453.59250	00453.59250
015 01 1	00141.74766	00141.74766
015 01 3	00141.74766	00141.74766
015 02 0	00028.34950	00028.34950
015 02 1	00008.85915	00008.85915
015 02 3	00008.85920	00008.85920
015 03 0	01000.00000	01000.00000
015 04 0	00001.00000	00001.00000
015 04 3	00000.31250	00000.31250
015 05 0	01225.00000	01225.00000
015 06 0	00001.22500	00001.22500
015 06 1	00000.23500	00000.23500
015 06 2	00001.14230	00001.14230
015 06 3	00000.23500	00000.23500
015 06 8	00001.29850	00001.29850
015 40 0	11339.81300	11339.81300
015 58 0	45358.25000	45359.25000
016 01 0	00453.59250	00453.59250
016 02 0	00028.34950	00028.34950
016 02 3	00008.85915	00008.85915
016 04 0	00001.00000	00001.00000
016 04 3	00000.53720	00000.53720
016 06 0	00001.39000	00001.39000
016 40 0	11339.81300	11339.81300
018 06 0	00000.72200	00000.72200
040 00 1	00210.46690	00210.46690
040 01 0	00453.59250	00453.60000
040 02 0	00028.35000	00028.35000
040 02 1	00013.15416	00013.15416
040 02 8	00013.15416	00013.15416
040 04 0	00001.00000	00001.00000
040 06 0	00000.83300	00000.83300
040 06 1	00000.38650	00000.38650
040 06 2	00000.38650	00000.38650
040 06 8	00000.48400	00000.48400
040 41 0	01133.98130	01133.98130
040 58 0	45358.25000	45359.25000
041 01 0	00453.59250	00453.59250
041 01 1	00210.46692	00210.46692
041 01 2	00210.46692	00210.46692
041 01 8	00210.46620	00210.46620
041 02 0	00028.31950	00028.31950
041 02 1	00013.15416	00013.15416
041 02 8	00013.15416	00013.15416
041 03 0	01000.00000	01000.00000
041 03 1	00464.00000	00464.00000
041 04 1	00000.86400	00000.86400
041 04 8	00000.86400	00000.86400
041 06 0	00000.83300	00000.83300
041 06 1	00000.31200	00000.31200
041 06 2	00000.48400	00000.48400
041 06 3	00000.31200	00000.31200
041 06 8	00000.42400	00000.42400
041 40 0	11339.81300	11339.81300
041 52 0	02267.96300	02267.96300
041 58 0	45359.25000	45359.25000
042 01 0	00453.59250	00453.59250
042 01 1	00212.73488	00212.73488
042 02 0	00028.34950	00028.34950
042 02 1	00013.29590	00013.29590
042 02 8	00013.89590	00013.89590
042 06 0	00000.85400	00000.85400
042 06 1	00000.37100	00000.37100
042 06 2	00000.37100	00000.37100
042 06 8	00000.37100	00000.37100
042 52 0	02267.96300	02267.96300
042 58 0	45358.25000	45359.25000
043 01 0	00453.59250	00453.59250
043 01 1	00210.46600	00210.46600
043 01 8	00210.46600	00210.46600
043 02 0	00028.34950	00028.34950
043 02 3	00013.15410	00013.15410
043 02 8	00013.15410	00013.15410
043 06 0	00000.39625	00000.39625
045 01 0	00453.59250	00453.59250
060 01 0	00453.59250	00453.59250
060 01 8	00453.59250	00453.59250
060 02 0	00028.34950	00028.34950
060 02 8	00028.34950	00028.34950
060 06 0	00000.60000	00000.60000
060 06 8	00000.60000	00000.60000
061 01 0	00294.83510	00453.59250
062 01 0	00453.59250	00453.59250
062 01 8	00453.59250	00453.59250
062 02 0	00028.34950	00028.34950
062 06 0	00000.60000	00000.60000
063 01 0	00453.59250	00453.59250
063 02 0	00028.34950	00028.34950
063 06 0	00000.60000	00000.60000
064 01 0	00480.80800	00480.80800
064 01 1	00480.80800	00480.80800
064 01 8	00480.80800	00480.80800
064 02 0	00030.05000	00030.05000
064 02 8	00030.05000	00030.05000
064 06 0	00000.63000	00000.63000
064 06 1	00000.63000	00000.63000
064 06 8	00000.63000	00000.63000
064 07 0	00023.00000	00023.00000
064 07 1	00023.00000	00023.00000
064 07 5	00023.00000	00023.00000
065 06 0	00000.56074	00000.56074

(1- 2 - 3)	(4)	(5)
065 06 8	00000.56074	00000.56074
066 01 0	00453.59250	00453.59250
066 02 0	00000.63000	00000.63000
067 01 5	00453.59250	00453.59250
067 08 0	00021.00000	00021.00000
067 08 5	00021.00000	00021.00000
067 41 0	00348.75000	00348.75000
067 41 5	00348.75000	00348.75000
068 01 0	00453.59250	00453.59250
068 02 5	00028.34950	00028.34950
068 03 5	01000.00000	01000.00000
068 04 5	00001.00000	00001.00000
068 07 0	00047.70000	00047.70000
068 07 5	00047.70000	00047.70000
068 08 5	00023.58700	00023.58700
068 41 5	00272.15505	00272.15505
069 07 0	00043.09360	00043.09360
069 07 5	00043.09360	00043.09360
069 16 5	00001.99900	00001.99900
069 16 6	00001.99900	00001.99900
069 16 7	00001.99900	00001.99900
069 16 8	00001.99900	00001.99900
070 07 0	00020.70000	00020.70000
070 08 5	00021.00000	00021.00000
070 13 5	00043.09360	00043.09360
071 02 5	00028.34950	00028.34950
071 04 0	00001.00000	00001.00000
071 07 0	00020.70000	00020.70000
071 07 5	00020.70000	00020.70000
071 08 5	00021.00000	00021.00000
071 12 0	00028.34950	00028.34950
071 12 5	00028.34950	00028.34950
071 13 0	00043.09360	00043.09360
071 13 5	00043.09360	00043.09360
071 14 0	00105.83800	00105.83800
071 14 5	00105.83800	00105.83800
071 41 5	00310.50000	00310.50000
072 01 0	00453.59250	00453.59250
072 01 5	00453.59250	00453.59250
072 04 0	00001.00000	00001.00000
072 07 0	00043.09360	00043.09360
072 07 5	00043.09360	00043.09360
072 08 5	00021.00000	00021.00000
072 12 0	00028.34900	00028.34900
072 12 5	00028.34900	00028.34900
072 13 0	00043.09360	00043.09360
072 13 5	00043.09360	00043.09360
072 14 0	00105.83805	00105.83805
072 14 5	00105.83805	00105.83805
072 16 5	00001.99900	00001.99900
074 12 5	00028.34950	00028.34950
075 07 0	00043.09360	00043.09360
075 07 5	00043.09360	00043.09360
075 12 0	00028.34900	00028.34900

(1- 2 - 3)	(4)	(5)
075 12 5	00028.34900	00028.34900
075 13 0	00043.09360	00043.09360
075 13 5	00043.09360	00043.09360
075 14 0	00105.85300	00105.85300
075 14 4	00105.85300	00105.85300
075 14 5	00105.85300	00105.85300
075 41 5	00215.46800	00215.46800
077 01 0	00453.59250	00453.59250
077 02 0	00028.34950	00028.34950
077 02 5	00028.34950	00028.34950
077 04 0	00001.00000	00001.00000
077 06 0	00000.10570	00000.10570
077 06 1	00000.10570	00000.10570
078 01 0	00453.59250	00453.59250
078 02 0	00028.34950	00028.34950
078 04 0	00001.00000	00001.00000
078 04 8	00001.00000	00001.00000
078 06 0	00000.57000	00000.57000
078 06 1	00000.57000	00000.57000
078 06 8	00000.57000	00000.57000
078 41 0	00057.00000	00057.00000
079 01 0	00453.59250	00453.59250
079 02 0	00028.34950	00028.34950
079 04 0	00001.00000	00001.00000
079 06 0	00000.33330	00000.33330
079 41 0	00453.59250	00453.59250
080 01 0	00453.59250	00453.59250
080 02 0	00028.34950	00028.34950
080 04 0	00001.00000	00001.00000
080 41 0	00453.59250	00453.59250
081 01 0	00453.59250	00453.59250
081 41 0	00453.59250	00453.59250
082 01 0	00453.59250	00453.59250
083 01 0	00453.59250	00453.59250
083 02 0	00028.34950	00028.34950
084 01 0	00453.59250	00453.59250
084 02 0	00028.34950	00028.34950
084 04 0	00001.00000	00001.00000
084 41 0	00453.59250	00453.59250
085 01 0	00453.59250	00453.59250
085 02 0	00028.34950	00028.34950
085 04 0	00001.00000	00001.00000
085 41 0	00453.59250	00453.59250
086 01 0	00453.59250	00453.59250
086 02 0	00028.34950	00028.34950
086 04 0	00001.00000	00001.00000
086 41 0	00453.59250	00453.59250
087 01 0	00453.59250	00453.59250
087 02 0	00028.34950	00028.34950
088 01 0	00453.59250	00453.59250
088 02 0	00028.34950	00028.34950
088 04 0	00001.00000	00001.00000
088 04 8	00001.00000	00001.00000
100 01 0	00302.39500	00453.59250

(1- 2 - 3)	(4)	(5)
100 07 0	00100.00000	00150.00000
100 07 4	00100.00000	00150.00000
101 01 0	00302.39500	00453.59250
101 02 0	00001.88996	00028.34950
101 07 0	00100.00000	00150.00000
101 07 1	00100.00000	00150.00000
101 07 2	00100.00000	00150.00000
102 01 0	00151.18000	00453.59250
102 07 0	00060.00000	00180.00000
102 07 1	00060.00000	00180.00000
102 51 0	00300.00000	00900.00000
103 07 0	00017.35000	00023.13000
105 01 0	00344.73030	00453.59250
105 07 0	00190.00000	00250.00000
105 52 0	00950.00000	01250.00000
106 01 0	00388.87000	00453.59250
106 01 1	00388.87000	00453.59250
106 01 2	00388.87000	00453.59250
106 02 0	00024.30430	00028.34950
106 04 0	00000.85730	00001.00000
106 07 0	00120.00000	00140.00000
106 07 1	00120.00000	00140.00000
106 58 0	45358.25000	45359.25000
107 01 0	00366.04900	00453.59250
107 02 0	00022.87800	00028.34950
107 07 0	00460.00000	00570.00000
107 08 0	00120.00000	00135.00000
108 01 0	00376.48000	00453.59250
108 07 0	00170.00000	00190.00000
109 01 0	00318.10422	00453.59250
109 04 0	00000.70000	00001.00000
109 07 0	00250.00000	00450.00000
109 08 0	00250.00000	00450.00000
110 01 0	00328.74000	00453.59250
110 08 0	00080.00000	00100.00000
111 01 0	00331.20000	00453.59250
111 02 0	00020.69500	00028.34950
111 07 0	00100.00000	00150.00000
130 01 0	00227.27000	00227.27000
130 01 1	00227.27000	00227.27000
130 02 0	00014.20450	00014.20450
130 02 1	00014.20450	00014.20450
130 03 0	00499.99400	00499.99400
130 04 0	00000.49999	00000.49999
130 05 0	01000.00000	01000.00000
130 05 1	01000.00000	01000.00000
130 06 0	00001.00000	00001.00000
130 06 1	00001.00000	00001.00000
130 17 0	03785.60000	03785.60000
130 19 0	01000.00000	00500.00000
130 20 0	00500.00000	00500.00000
130 21 0	00354.00000	00354.00000
130 24 0	00750.00000	00750.00000
130 25 0	00375.00000	00375.00000

(1- 2 - 3)	(4)	(5)
130 26 0	00375.00000	00375.00000
130 27 0	00750.00000	00750.00000
131 01 0	00227.27000	00227.27000
131 01 8	00227.27000	00227.27000
131 02 0	00014.20450	00014.20450
131 05 0	01000.00000	01000.00000
131 05 1	01000.00000	01000.00000
131 06 0	00001.00000	00001.00000
131 06 1	00001.00000	00001.00000
131 19 0	01000.00000	01000.00000
131 20 0	00500.00000	00500.00000
131 21 0	00354.00000	00354.00000
131 24 0	00750.00000	00750.00000
134 01 0	00453.59250	00453.59250
134 02 0	00028.34950	00028.34950
134 03 0	01000.00000	01000.00000
134 04 0	00001.00000	00001.00000
134 06 0	00000.52900	00000.52900
134 06 1	00000.52900	00000.52900
134 34 0	01800.00000	01800.00000
135 01 0	00453.59250	00453.59250
135 04 0	00001.00000	00001.00000
136 01 0	00453.59250	00453.59250
136 01 1	00453.59250	00453.59250
136 02 0	00028.34950	00028.34950
136 03 0	01000.00000	01000.00000
136 04 0	00001.00000	00001.00000
136 06 0	00000.52900	00000.52900
136 06 1	00000.52900	00000.52900
137 06 0	00000.52900	00000.52900
138 04 0	00000.49999	00000.49999
138 05 0	01000.00000	01000.00000
139 01 0	00453.59250	00453.59250
139 02 0	00028.34950	00028.34950
139 04 0	00001.00000	00001.00000
140 01 0	00453.59250	00453.59250
140 02 0	00028.34950	00028.34950
140 04 0	00001.00000	00001.00000
140 07 0	00453.59250	00453.59250
141 01 0	00453.59250	00453.59250
141 02 0	00028.34950	00028.34950
141 04 0	00001.00000	00001.00000
141 06 0	00000.52900	00000.52900
142 01 0	00453.59250	00453.59250
142 02 0	00028.34950	00028.34950
142 04 0	00001.00000	00001.00000
142 08 0	00023.13300	00023.13300
143 01 0	00453.59250	00453.59250
143 02 0	00028.34950	00028.34950
143 06 0	00000.52900	00000.52900
144 01 0	00453.59250	00453.59250
144 02 0	00028.34950	00028.34950
144 06 0	00000.52900	00000.52900
145 01 0	00453.59250	00453.59250

(1- 2 - 3)	(4)	(5)
145 01 1	00453.59250	00453.59250
145 02 0	00028.34950	00028.34950
145 02 1	00028.34950	00028.34950
145 03 0	01000.00000	01000.00000
145 05 0	00529.00000	00529.00000
145 06 0	00000.52900	00000.52900
145 07 0	00453.59250	00453.59250
146 01 0	00453.59250	00453.59250
146 01 1	00453.59250	00453.59250
146 02 0	00028.34950	00028.34950
146 02 1	00028.34950	00028.34950
146 05 0	00529.00000	00529.00000
146 06 0	00000.52900	00000.52900
147 01 0	00453.59250	00453.59250
147 01 1	00453.59250	00453.59250
147 02 0	00028.34950	00028.34950
147 02 1	00028.34950	00028.34950
148 02 0	00028.34950	00028.34950
148 06 0	00000.52900	00000.52900
149 01 0	00453.59250	00453.59250
149 01 1	00453.59250	00453.59250
149 02 0	00028.34950	00028.34950
149 02 1	00028.34950	00028.34950
149 04 0	00001.00000	00001.00000
149 04 1	00001.00000	00001.00000
149 05 0	01120.00000	01120.00000
149 06 0	00001.12000	00001.12000
149 06 1	00001.12000	00001.12000
150 01 0	00453.59250	00453.59250
150 02 0	00028.34950	00028.34950
150 02 1	00028.34950	00028.34950
150 03 0	01000.00000	01000.00000
150 04 0	00001.00000	00001.00000
150 06 0	00001.16600	00001.16600
150 07 0	00113.39800	00113.39800
151 01 0	00453.59250	00453.59250
151 04 0	00001.00000	00001.00000
152 01 0	00453.59250	00453.59250
152 04 0	00001.00000	00001.00000
153 01 0	00453.59250	00453.59250
153 02 8	00028.34950	00028.34950
153 05 0	01000.00000	01000.00000
153 06 0	00001.00000	00001.00000
153 06 8	00001.00000	00001.00000
170 07 0	00001.00000	00001.00000
170 07 1	00001.00000	00001.00000
170 07 2	00001.00000	00001.00000
170 07 5	00001.00000	00001.00000
170 07 6	00001.00000	00001.00000
170 48 0	00012.00000	00012.00000
171 07 0	00001.00000	00001.00000
171 07 5	00001.00000	00001.00000
171 48 0	00012.00000	00012.00000
173 07 0	00001.00000	00001.00000

(1- 2 - 3)	(4)	(5)
173 07 1	00001.00000	00001.00000
173 07 2	00001.00000	00001.00000
173 48 0	00012.00000	00012.00000
180 01 0	00290.29900	00453.59250
180 01 6	00290.29900	00453.59250
180 02 0	00018.14360	00028.34950
181 01 0	00453.59250	00453.59250
181 01 2	00453.59250	00453.59250
181 01 3	00453.59250	00453.59250
181 01 4	00453.59250	00453.59250
181 01 8	00453.59250	00453.59250
181 02 0	00028.34950	00028.34950
181 02 2	00028.34950	00028.34950
181 02 3	00028.34950	00028.34950
181 02 4	00028.34950	00028.34950
181 02 8	00028.34950	00028.34950
181 06 0	00000.94347	00000.94347
181 06 3	00000.94347	00000.94347
181 06 4	00000.94347	00000.94347
181 06 8	00000.94347	00000.94347
182 01 0	00278.27900	00453.59250
183 01 0	00290.29900	00453.59250
184 01 0	00358.33800	00453.59250
184 01 2	00358.33800	00453.59250
184 02 0	00022.40000	00028.34950
184 02 2	00022.40000	00028.34950
184 02 3	00022.40000	00028.34950
185 01 0	00453.59250	00453.59250
185 01 1	00453.59250	00453.59250
185 01 2	00453.59250	00453.59250
185 01 3	00453.59250	00453.59250
185 01 5	00453.59250	00453.59250
185 02 0	00028.34950	00028.34950
185 02 2	00028.34950	00028.34950
186 01 0	00453.59250	00453.59250
186 01 1	00453.59250	00453.59250
186 01 8	00453.59250	00453.59250
186 02 0	00028.34950	00028.34950
186 02 8	00028.34950	00028.34950
187 01 0	00358.33800	00453.59250
187 02 0	00022.39610	00028.34950
188 01 0	00385.55830	00453.59250
188 01 2	00385.55830	00453.59250
188 02 0	00024.09700	00028.34950
188 04 0	00000.85000	00001.00000
189 01 0	00340.19430	00453.59250
190 01 0	00408.23700	00453.59250
190 01 3	00408.23700	00453.59250
190 02 0	00025.51455	00028.34950
191 01 0	00453.59250	00453.59250
192 01 0	00453.59250	00453.59250
193 01 0	00453.59250	00453.59250
194 01 0	00204.11660	00453.59250
195 01 0	00453.59250	00453.59250

(1- 2 - 3)	(4)	(5)
196 01 0	00303.90600	00453.59250
196 01 1	00303.90600	00453.59250
196 01 2	00303.90600	00453.59250
196 01 3	00303.90600	00453.59250
196 01 4	00303.90600	00453.59250
196 01 5	00303.90600	00453.59250
196 02 0	00016.98400	00028.34950
196 02 2	00016.98400	00028.34950
196 02 3	00016.98400	00028.34950
196 02 4	00016.98400	00028.34950
196 06 1	00000.53290	00000.88950
196 06 2	00000.53290	00000.88950
196 06 3	00000.53290	00000.88950
196 06 4	00000.53290	00000.88950
196 06 5	00000.53290	00000.88950
196 07 0	00759.76700	01133.98130
196 07 2	00759.76700	01133.98130
197 01 0	00362.87400	00453.59250
197 01 2	00362.87400	00453.59250
197 07 2	00157.92000	00188.00000
198 01 0	00304.18000	00453.59250
199 01 0	00391.22000	00453.59250
199 01 1	00391.22000	00453.59250
199 01 2	00391.22000	00453.59250
199 01 3	00391.22000	00453.59250
199 01 6	00391.22000	00453.59250
199 02 0	00024.45100	00028.34950
199 02 3	00024.45100	00028.34950
199 41 0	00391.22000	00453.59250
200 01 0	00303.90600	00453.59250
200 01 1	00303.90600	00453.59250
200 01 3	00303.90600	00453.59250
200 01 6	00303.90600	00453.59250
200 02 3	00018.99410	00028.34950
200 07 0	01063.67400	01587.57820
203 01 0	00391.22000	00453.59250
204 01 0	00245.00000	00453.59250
205 01 0	00453.59250	00453.59250
205 01 1	00453.59250	00453.59250
205 02 0	00028.34950	00028.34950
205 02 2	00028.34950	00028.34950
205 04 0	00001.00000	00001.00000
205 08 0	00045.35900	00045.35900
205 08 2	00045.35900	00045.35900
206 01 0	00453.59250	00453.59250
206 01 1	00453.59250	00453.59250
206 02 0	00028.34950	00028.34950
206 08 0	00037.79900	00037.79900
207 01 0	00453.59250	00453.59250
207 01 2	00453.59250	00453.59250
207 02 0	00028.34950	00028.34950
207 04 0	00001.00000	00001.00000
207 07 0	00100.79800	00100.79800
207 07 2	00100.79800	00100.79800

(1- 2 - 3)	(4)	(5)
208 01 0	00453.59250	00453.59250
208 01 1	00453.59250	00453.59250
208 02 0	00028.34950	00028.34950
208 04 0	00001.00000	00001.00000
208 07 0	00030.23950	00030.23950
209 01 0	00453.59250	00453.59250
209 02 0	00028.34950	00028.34950
209 07 0	00010.53800	00010.53800
210 01 0	00453.59250	00453.59250
210 02 0	00028.34950	00028.34950
210 04 0	00001.00000	00001.00000
211 01 0	00453.59250	00453.59250
211 02 0	00028.34950	00028.34950
212 01 0	00453.59250	00453.59250
213 01 0	00367.40900	00453.59250
213 01 1	00367.40900	00453.59250
213 01 2	00367.40900	00453.59250
213 01 4	00367.40900	00453.59250
213 01 6	00367.40900	00453.59250
213 02 0	00022.96300	00028.34950
213 07 0	00300.00000	00580.00000
214 01 0	00453.59250	00453.59250
214 02 0	00028.34950	00028.34950
214 07 0	00175.00000	00175.00000
215 01 0	00340.19400	00453.59250
215 01 1	00340.19400	00453.59250
215 02 0	00021.26210	00028.34950
216 01 0	00226.79600	00453.59250
216 02 0	00014.17470	00028.34950
219 01 0	00453.59250	00453.59250
219 02 0	00028.34950	00028.34950
219 02 1	00028.34950	00028.34950
219 02 3	00028.34950	00028.34950
219 04 0	00001.00000	00001.00000
220 01 0	00362.87400	00453.59250
220 01 2	00362.87400	00453.59250
220 02 0	00022.67960	00028.34950
220 02 4	00022.67960	00028.34950
220 04 0	00000.80000	00001.00000
220 04 1	00000.80000	00001.00000
240 01 0	00453.59250	00453.59250
240 02 0	00028.34950	00028.34950
240 03 0	01000.00000	01000.00000
240 04 0	00001.00000	00001.00000
240 05 0	01166.00000	01166.00000
240 06 0	00001.16600	00001.16600
240 06 1	00001.16600	00001.16600
240 06 2	00001.16600	00001.16600
240 26 0	00437.25000	00437.25000
241 01 0	00453.59250	00453.59250
241 06 0	00001.16600	00001.16600
241 06 1	00001.16600	00001.16600
241 17 0	03785.60000	03785.60000
241 25 0	00375.00000	00375.00000

(1- 2 - 3)	(4)	(5)
241 26 0	00375.00000	00375.00000
241 27 0	00874.50000	00874.50000
242 01 0	00453.59250	00453.59250
242 02 0	00028.34950	00028.34950
242 05 0	00951.90000	00951.90000
242 06 0	00000.95190	00000.95190
242 06 1	00000.95190	00000.95190
242 17 0	03603.51300	03603.51300
242 24 0	00750.00000	00750.00000
243 02 0	00028.34950	00028.34950
243 06 0	00000.95190	00000.95190
244 01 0	00453.59250	00453.59250
244 02 0	00028.34950	00028.34950
244 03 0	01000.00000	01000.00000
244 04 0	00001.00000	00001.00000
244 06 0	00001.16600	00001.16600
244 42 0	00453.59250	00453.59250
245 01 0	00453.59250	00453.59250
245 02 0	00028.34950	00028.34950
245 04 0	00001.00000	00001.00000
245 06 0	00000.93000	00000.93000
246 01 0	00453.59250	00453.59250
246 06 0	00001.16600	00001.16600
260 01 0	00453.59250	00453.59250
260 02 0	00028.34950	00028.34950
260 03 0	01000.00000	01000.00000
260 04 0	00001.00000	00001.00000
260 05 0	01088.60000	01088.60000
260 06 0	00001.08860	00001.08860
260 06 1	00001.08860	00001.08860
260 60 0	00453.59250	00453.59250
260 58 0	45358.25000	45359.25000
261 01 0	00453.59250	00453.59250
261 06 0	00001.08860	00001.08860
262 01 0	00453.59250	00453.59250
262 01 1	00453.59250	00453.59250
262 02 0	00028.34950	00028.34950
262 02 1	00028.34950	00028.34950
262 06 0	00000.72300	00000.72300
262 06 1	00000.72300	00000.72300
263 02 1	00018.42700	00018.42700
264 01 0	00453.59250	00453.59250
264 02 0	00028.34950	00028.34950
264 02 1	00028.34950	00028.34950
264 04 0	00001.00000	00001.00000
264 06 0	00001.43300	00001.43300
264 21 0	00507.28200	00507.28200
264 24 0	01074.75000	01074.75000
264 25 0	00537.37500	00537.37500
300 01 0	00359.74580	00453.59250
300 07 0	00230.00000	00290.00000
301 06 0	00000.33810	00000.33810
301 07 0	00396.76000	00763.00000

Appendix 5. Sample Activities for Males and Females, Grouped by Activity Level

Males: Activity Level		
Light	Moderate	High
Activities		
Lying Sitting Standing quietly Cooking Fishing with line Fishing from canoe Playing cards Washing clothes Making bows and arrows Light recreational (billiards, golf, cricket) Office work Driving bus, taxi, tractor Flying helicopter Sewing Sorting crops, kneeling Laboratory work Weaving Carving Sorghum harvest - cutting ears Tailoring Cleaning kit (Army)	Strolling Fishing with spear Light or moderate cleaning Tying fence posts Walking slowly or at normal pace Walking downhill, at any pace Weaving bamboo wall Roofing house Singing and dancing Nailing Hunting birds, flying fox, pigs Walking with 10 kg load Moderate recreation (dancing, swimming, tennis) Shoemaking Kneading clay Painting and decorating Planting Milking cows by hand Making bricks, squatting Electrical industry Machine tool industry Cutting bamboo Joinery Drill (Army) Bricklaying Paddling canoe Jungle patrol (Army) Uprooting timbers Carpentry Chemical industry Feeding animals Making a fence Lifting grain sacks Winnowing	Chopping firewood Laying floor (LDC) Walking uphill Heavy recreational (jogging, athletics) Putting coconuts in a bag Brick breaking Sharpening posts Planting trees Cutting palm tree trunks Splitting wood for posts Sawing and power sawing Route marching (Army) Shoveling mud Collecting coconuts (incl. climbing trees Cutting grass with machete Loading sacks Cutting trees Pushing wheelbarrow Repairing fences Digging holes for posts Assault course (Army) Laboring Collecting and spreading manure by hand Pulling cart Digging irrigation channels Digging earth to make mud Shoveling Jungle march (Army) Mining Earth cutting Digging holes Husking coconuts Loading manure by hand Cutting sugar cane Forking Pedaling rickshaw Trimming branches of a tree Felling tree with ax Hand sawing

Females: Activity Level		
Light	Moderate	Heavy
Activities		
Lying down	Walking downhill	Walking with load
Sitting quietly	Strolling	Fetching water from well
Roasting corn	Singing and dancing	Chopping wood
Ironing	Loading earth oven	Catching crabs
Preparing vegetables	Light cleaning	Pounding grain
Sitting, sewing clothes	Light weeding	Walking uphill (w/ or w/o load)
Podding beans	Sweeping house	Walking downhill (fast with load)
Sewing	Walking slowly or at normal pace	Sawing
Sewing pandanus mat	Washing clothes	Binding sheaves
Weaving carrying bag	Sweeping yard	Digging holes for planting
Preparing rope	Moderate cleaning	Hoeing
Standing	Stirring porridge	Digging ground
Peeling taro	Grinding grain on millstone	Threshing
Washing dishes	Catching fish by hand	Cutting grass with machete
Cooking	Machine tool industry	Collecting fuel wood
Squeezing coconut	Brewery work	Road construction
Collecting leaves for flavoring	Chemical industry	Digging irrigation ditches
Breaking nuts e.g., peanuts	Harvesting grains	Digging holes
Spinning cotton	Harvesting vegetables	Cutting sugar cane
Preparing tobacco	Harvesting root crops	Husking coconuts
Picking coffee	Harvesting medicinal crops	Putting coconuts in a bag
Winnowing	Kneading clay	Harvesting tree crops
Office work	Milking cows/goats by hand	Planting trees
De-seeding cotton	Making cheese	
Electrical industry	Feeding animals	
Beating cotton	Furnishing industry	
	Laundry work	
	Cutting fruit from trees	
	Clearing ground	
	Planting	

Appendix 6. Using SPSS/PC to Calculate Household Calorie Intake

To calculate household calorie intake and requirements, the data analyst(s) will need to make several adjustments to the data collected using data from the food-intake questionnaire described in the text. Dishes and many individual ingredients must be transformed into standard units, for which caloric equivalents can be assigned. The caloric value of leftover food must be calculated and deducted. The caloric requirements for the household must be calculated, based on several factors, and finally, a calculation of the adequecy of caloric intake can be made. Procedures and SPSS/PC programs for making these adjustments are presented and explained in detail below.

IV.1.   *Calculating Adult Equivalent Ratio for Household Members*

The adult equivalent ratio (AER) for each household member needs to be calculated and saved in a separate file, for use in processing the 24-hour recall data. The AER is based on the individual's caloric requirements, which are calculated based on age, sex, imputed weight, current activity level, and physiological status, as well as the caloric requirements of a standardized adult equivalent. Weight is labeled "imputed" because the interviewer does not actually weigh household members or ask the respondent to estimate weights. Instead, country specific averages are used (see section IV.1.1. for further details).

IV.1.1.   *Caloric Requirements of Adult Equivalents*

The denominator of the AER is the daily caloric requirement of an adult equivalent. An adult equivalent can be defined by any combination of age, sex, and activity level. However, once defined, the adult equivalent must be considered standard and fixed for all cases in a study. Appendix 7 contains caloric requirements for suggested adult equivalents for FAO-member countries with populations greater than 300,000 (countries are listed in Appendix 6). The definition of an adult equivalent in the table is an adult male, 30-60 years old, of moderate activity, and average weight for the respective country.

IV.1.2.   *Caloric Requirements for Each Household Member*

The numerator of the AER is the daily caloric requirement of each household member currently residing in the household (code of '1' in Column 8 of the Household Composition Questionnaire, figure 3). The four steps outlined below should be followed to calculate individual caloric requirements for household members aged 10 years and over. While it is possible to calculate requirements for individual children under 10, the FAO/WHO Committee recommends using the standardized caloric requirements contained in Appendix 8, tables 1-4. These requirements were estimated based on observed intakes of healthy children growing normally. Figure 4 illustrates how AERs were calculated for a Kenyan household.

IV.1.2.1. Estimate Household Member's Weight

Appendix 9 contains weight data for FAO member countries to be used as a best estimate of average weight in kilograms by age and sex. This is the "imputed weight."

IV.1.2.2. Calculate Basal Metabolic Rate (BMR) Caloric Requirements

The imputed weight (W) for each age/sex is included in the following equations to estimate the basal metabolic rate (BMR) caloric, or energy, requirements of an individual while "at rest." This formula is applied to all household members ten years old and older. Younger children are assigned caloric requirements according to age and irrespective of weight. The appropriate tables are listed in Appendix 8.

12

Equations for predicting BMR from body weight in kgs (W)

Age Range (in Years)	Equation for Calories per Day
Male	
10-17+	(17.5 x W) + 651
18-29+	(15.3 x W) + 679
30-59+	(11.6 x W) + 879
60+	(13.5 x W) + 487
Female	
10-17+	(12.2 x W) + 746
18-29+	(14.7 x W) + 496
30-59+	(8.7 x W) + 829
60+	(10.5 x W) + 596

Source: WHO, 1985, *Energy and Protein Requirements: Report of a Joint FAO/WHO/UNU Expert Consultation*, World Health Organization: Geneva, 71.

IV.1.2.3. Allow for Activity Level

Individual BMR requirements are multiplied by a factor to reflect his or her activity level. Although BMR multipliers represent broad averages, they serve to increase total caloric requirements to reflect relative rates of energy use. More detailed and precise BMR multipliers can be calculated if more detailed information of time allocation is collected for each household member, but this level of detail is not necessary, given the overall level of precision of the caloric adequacy indicator.

BMR Multipliers for Current Activity Level

Gender	Activity Level		
	Light	Moderate	Heavy
Male	1.55	1.78	2.10
Female	1.56	1.64	1.82

Source: WHO, 1985, *Energy and Protein Requirements: Report of a Joint FAO/WHO/UNU Expert Consultation,* World Health Organization: Geneva, p. 78.

IV.1.2.4.   Additional Requirements During Pregnancy and Lactation

Pregnancy and lactation increase a woman's caloric requirements. If a household member is pregnant, 285 calories should be added to her daily caloric requirement. Add 700 calories a day if she is breastfeeding a child under 6 months of age, and 500 calories a day if the breastfed child is six months or older. Combine the additional requirements if the woman is both pregnant and breastfeeding.

IV.1.3.   *Calculating Adult Equivalent Ratios for Each Household Member*

The AER is the daily caloric requirement of each household member divided by the caloric requirements of the adult equivalent for the country of interest. Thus each household member's AER represents the proportion of the adult equivalent caloric requirements required by the household member. See Figure 4 for an example of an AER calculation.

IV.1.4.   *Creating an Adult Equivalent Data File*

The following example presents a partial set of SPSS/PC commands used to assign AER values to household members in a Honduran data set. The commands assign AER for adult males and non-pregnant, non-lactating females. Similar commands can be created for all possible groupings of age/sex/physiological status/activity level for which there are separate AER calculations.

If (AGE ge 18 and AGE lt 30) and SEX = 1 and STAT = 1 and ACT = 1)
AER = 1.374.
If (AGE ge 18 and AGE lt 30) and SEX = 1 and STAT = 1 and ACT = 2)
AER = 1.164.
If (AGE ge 18 and AGE lt 30) and SEX = 1 and STAT = 1 and ACT = 3)
AER = 1.014.
If (AGE ge 18 and AGE lt 30) and SEX = 2 and STAT = 1 and ACT = 1)
AER = .951.
If (AGE ge 18 and AGE lt 30) and SEX = 2 and STAT = 1 and ACT = 2)
AER = .857
If (AGE ge 18 and AGE lt 30) and SEX = 2 and STAT = 1 and ACT = 3)
AER = .815

Key:

AGE	Age in years
SEX	Gender
	1 = Male 2 = Female
STAT	Physiological status
	1. Not pregnant nor lactating
	2. Pregnant
	3. Breastfeeding child < 6 mo.
	4. Breastfeeding child >= 6 mo.
	5. Pregnant and breastfeeding child < 6 mo.
	6. Pregnant and breastfeeding child >= 6 mo.
ACT	Activity level
	1 = High
	2 = Moderate
	3 = Light

Once the AER has been calculated for each household member, an adult equivalent data file (ADEQUIV.SYS) should be created for use during processing of the dietary intake data. The ADEQUIV.SYS will contain one line per household, with the AER of all household members listed as separate variables. To create this file, the household composition file (HHCOMP.SYS) needs to be transposed.

For example:

HHCOMP.SYS

HHID	MEMID	SEX	AGE	STAT	ACT	AER
1	1	1	45	1	2	1
1	2	2	41	4	2	1.071
1	3	2	12	1	3	0.799
2	1	2	39	1	1	0.962
2	2	1	18	1	1	1.355
2	3	2	15	2	2	0.963
2	4	2	9	1	3	0.737
3	1	2	82	1	3	0.736
4	1	1	27	1	2	1.164
4	2	2	24	2	2	0.973

HHID = Household ID
MEMID = Member ID

If (MEMID = 1) AECAL1 = AER.
If (MEMID = 2) AECAL2 = AER.
If (MEMID = 3) AECAL3 = AER.
If (MEMID = 4) AECAL4 = AER.
If (MEMID = 5) AECAL5 = AER.
*** The number of "if statements" should equal the maximum number of household members in the
data set. In the example from Honduras, there were 24.*

The result of the above set of commands is: HHCOMP.SYS

HHID	MEMID	SEX	AGE	STAT	ACT	AER	AECAL1	AECAL2	AECAL3	AECAL4	AECAL5
1	1	1	45	1	2	1	1	.	.	.	.
1	2	2	41	4	2	1.071	.	1.071	.	.	.
1	3	2	12	1	3	0.799	.	.	0.799	.	.
2	1	2	39	1	1	0.962	0.962	.	.	.	.
2	2	1	18	1	1	1.355	.	1.355	.	.	.
2	3	2	15	2	2	0.963	.	.	0.963	.	.
2	4	2	9	1	3	0.737	.	.	.	0.737	.
3	1	2	82	1	3	0.736	0.736	.	.	.	.
4	1	1	27	1	2	1.164	1.164	.	.	.	.
4	2	2	24	2	2	0.973	.	0.973	.	.	.

The next step is to reduce HHCOMP.SYS from one line per household member to one line per household. The SPSS/PC AGGREGATE command is used, with "household" as the break variable.

Figure 4. **Sample AER calculation (Kenya)**

Member			Age		Physiological status	Activity
ID	Name	Sex	Number	Unit	(14 - 60 yrs only)	level
1		1	45	1		1
2		2	42	1	6	2
		1. Male 2. Female		1. Years 2. Months (children < 1 year only)	1. Not pregnant nor lactating 2. Pregnant 3. Breastfeeding (child < 6 mos.) 4. Breastfeeding (child >= 6 mo.) 5. Pregnant and breastfeeding (child < 6 mo.) 6. Pregnant and breastfeeding (child >= 6 mo.)	1. High 2. Medium 3. Light

Sample Adult Equivalent Ratio Calculation

Member ID	Weight (Appendix 9)	BMR calculation	BMR cal/day requirement	Activity level multiplier	BMR requirement adjusted for activity level	Pregnancy/ lactation requirement cals/day	Total caloric requirement Cals/day	Adult equivalent caloric requirement	Member Adult Equivalent Ratio (AER) for calories
1	59.1	(11.6 x 59.1) + 879	1565	2.10	3286	0	3286	2840	1.16
2	52.8	(8.7 x 52.8) + 829	1288	1.64	2113	285+500	2328	2840	.82

aggregate file 'ADEQUIV.SYS' / break HHID / AECAL1 = sum(AECAL1)
/ AECAL2 = sum(AECAL2) / AECAL3 = sum(AECAL3)
/ AECAL4 = sum(AECAL4) / AECAL5 = sum(AECAL5) ...etc...
*There will be as many variable creation subcommands as the maximum number of household members in the data set.
*The result of the above set of commands: ADEQUIV.SYS .

HHID	AECAL1	AECAL2	AECAL3	AECAL4	AECAL5
1	1	1.071	0.799	.	.
2	0.962	1.355	0.963	0.737	.
3	0.736	.	.	.	.
4	1.164	0.973	.	.	.

IV.2.   **Calculating Household Food Intake**

This section details the data-processing steps necessary to convert raw food intake data into a summary variable of calories consumed per adult equivalent for each household. Examples of SPSS/PC command language for each step are included.

IV.2.1.   *Dietary File*

Once food intake data has been collected and entered, the data file should look like the one shown below. In this file, henceforth referred to as the "Dietary File," each row represents either an ingredient that the household used for preparing a dish, or the dish itself. Therefore, the number of rows (lines of data) in the file will equal the number of dishes prepared, plus the number of ingredients in each dish that the household prepared the previous day. Thus if a household used sugar in three dishes, sugar should appear three times in the data for that household.

Sample Dietary File

Line #	HHID 1	Meal 2	Abst1 .. AbstN * 3	18M 4	18F 5	AdM/F # 6	Chl4/11# 7	Dnum 8	Dish 9	Ingr 10	Quan 11	Unit 12	Lquan 13	Lunit 14	Src 15
1	21	1	1	0	0	0	0	1	1003	1003	35	19	4	19	1
2	21	1	1	0	0	0	0	1	1003	1001	1300	6	0	0	2
3	21	1	1	1	0	0	0	2	1403	1403	900	6	0	0	0
4	21	1	1	1	0	0	0	2	1403	403	.00	0	0	0	1
5	21	1	1	1	0	0	0	2	1403	260	110	6	0	0	1
6	21	2	0	0	0	0	0	1	2170	2170	5	7	0	0	0
7	21	2	0	0	0	0	0	1	2170	170	5	7	0	0	12
8	21	2	0	0	0	0	0	1	2170	240	70	6	0	0	1

* The number of Absent Member variables (Abst1...AbstN) will equal the maximum number of household members in the data set.
# There will be separate variables for Male and Female adolescent guests; and for 0-4 and 5-11 year old categories. Note: the number of columns had to be limited in the interest of space and clarity of presentation.

Where the variable labels are:

Variables	**Labels**
HHID	Household ID
MEAL	Number of eating occasions
ABS1, ABS2 ...ABSN	Member1 absent from meal, Member2 absent from meal, ... MemberN absent from meal
18M	Number of male guests 18 and over
18F	Number of female guests 18 and over
ADM	Number of adolescent male guests
ADF	Number of adolescent female guests
CHL11	Number of child guests 5-11 yrs
CHL4	Number of child guests 0-4 yrs
DNUM	Dish number for this eating occasion
DISH	Dish code
INGR	Ingredient code (include form of ingredient)
QUAN	Quantity prepared
UNIT	Unit of quantity prepared
LQUAN	Left over quantity
LUNIT	Unit of left over quantity
SRC	Source

In the dietary file, the lines in which the dish and the ingredient have the same code are referred to as "dish" lines. Line numbers 1, 3, and 6 in the dietary file shown are dish lines. A dish line is followed by one or more ingredient lines, depending on the number of ingredients used in the preparation of a dish. In the example, line 2 in the dietary file is an ingredient line; in this line the ingredient and the dish have different codes. A dish line separates one dish from the next. For example, line 3 separates dish 1003 from dish 1403.

The first step in preparing the data for analysis is to label the dish and ingredient lines by putting a flag on each line, since calories will be computed only for the ingredient lines. The flags also help to identify dishes that do not have ingredients listed after them and dishes without recipes. The following SPSS/PC commands are used to separate the dish and ingredient lines:

```
Do if (DISH = INGR)
Compute LINETYP = 1                          *(dish line)
Else
Compute LINETYP = 2                          *(ingredient line.
End if
Variable labels LINETYP 'dish or ingredient'
Value labels LINETYP 1 'dish' 2 'ingredient'
```

As a result of the above command, each line of data in the file will have a variable LINETYP, which will be either 1 or 2, depending upon whether it is a dish or an ingredient line (see Appendix 10).

The next step is to ensure that the data are sorted by HHID, MEAL, DNUM, and LINETYP, so that the data are in the correct order; meals are ordered by the number of eating occasion or hour; dishes at each meal are ordered by dish number; and the ingredients in each dish follow the dish line to which they belong.

```
sort HHID MEAL DNUM LINETYP
```

IV.2.2. *Convert Ingredient Quantity to a Standard Weight*

At the time of data collection, the ingredients used to prepare food may have been measured using a number of different units (milliliters, pounds, units, etc.). These measures have to be converted into a uniform standard weight (grams in this example) before nutritional values can be calculated. In the dish/ingredient coding system used, the ingredient (INGR) variable, includes codes for type (e.g., corn) and form (e.g., boiled) of the ingredient. Ingredients are coded using a four-digit code in which the first digit corresponds to the *form*, and the last three digits to the *type* of ingredient (referred to as PRODUCT). In order to assign a standard weight to the quantity of a specific type of ingredient used in a certain form, two new variables are created from the INGR variable, so that the type and form for each ingredient can be easily distinguished. The following SPSS/PC commands are used to separate the FORM from the PRODUCT in an ingredient code.

```
compute PRODUCT = INGR - 1000 * trunc(INGR/1000)
compute FORM = trunc((INGR-PRODUCT)/1000)
```

The dietary file (Appendix 11) now has information on the type of ingredient, its form, the unit of measure, and the quantity of that unit prepared in the household. To convert the quantities of ingredients measured in different units into a common unit (such as grams), a standard weight conversion file is used. This file contains information on the equivalent weight (WGTFACT) in raw edible product of one unit of measure for each form of the products in the data file. The sample file below has weight in grams of the raw product (WGTFACT), for dry corn kernels (PRODUCT = 1) in three forms: raw, cooked and ground (FORM = 0 or 1 or 8), measured in two units, pounds or milliliters (UNIT = 1 or 6). Note that WGTFACT for cooked ingredients (e.g., 1 milliliter of cooked corn (line 3) calculates the weight of the equivalent in raw product, not the weight per milliliter of cooked product. WGTFACT is in essence carrying out 2 conversions: it converts the volume of a cooked (or ground etc.) product to its equivalent volume of raw product, and then converts that raw volume to weight. This facilitates subsequent calculation of the total amount consumed of each product.

Sample Standard Weights File

Line #	PRODUCT	FORM	UNIT	WGTFACT
1	1	0	1	453.59
2	1	0	6	0.91
3	1	1	6	0.60
4	1	8	1	480.81
5	1	8	6	0.57

The weight conversion file (INGRDWGT.SYS) is matched with the dietary file (DIETARY.SYS) by PRODUCT, FORM and UNIT to insert the appropriate weight conversion factor (WGTFACT) in each ingredient line. The total weight (WGT) of the PRODUCT used is then calculated by multiplying the quantity (QUAN) of PRODUCT by WGTFACT. Appendix 12 shows a dietary file after these steps have been taken.

Join match file 'DIETARY.SYS' /table 'INGRDWGT.SYS' /by PRODUCT FORM
    UNIT.
Compute WGT = QUAN * WGTFACT.

IV.2.3. *Obtaining Recipes for Dishes with No Recipes*

The interviewer will not obtain recipes for dishes consumed by the households when the food was a leftover, a gift, or purchased outside the home for consumption in the home. Dishes with no recipe need to be identified before proceeding further with the analysis. The following SPSS/PC commands can be used to identify dishes that are not followed by any ingredient lines, which are those without recipes (see Appendix 13).

Create LINETY_N = lead (LINETYP,1)   * *Create a variable LINETY_N whose value is equal to the value of the LINETYP variable in the next case.*

Variable label LINETY_N 'value of linetyp for next case'
Compute NORECIPE = 0
If (LINETY_N = 1 and LINETYP = 1) NORECIPE = 1   * *If the case with LINETYP= 1 (dish line) is followed by another dish line (LINETY_N = 1), it should be marked as a case where dish has no recipe.*
Value label NORECIPE 0 'dish has recipe' 1 'dish has no recipe'

Dishes that would not normally have ingredients must be excluded from the list of dishes with no recipes. For example, a ripe banana or a slice of cheese would be "dishes" with no ingredients. This can be done by listing the codes of DISH for all dishes with no recipe, and then manually selecting out those would not beexpected to have a recipe. For these codes, the nutritional value for the dish line itself will be computed. LINETYP for these dishes should be recoded to 2, to flag these "dish-same-as-ingredient" lines. For example, a ripe banana would have a DISH code of 0100. To recode LINETYP:

If (DISH=0100)LINETYP=3

Average recipes need to be calculated for dishes that have no recipe in the data, so that nutritional values can be computed. Recipes are imputed either from the household itself or from the next level of sampling, such as

the cluster. Average recipes from the cluster or domain level can be used when household recipes are not available. The program used for imputing the recipes, provided in Appendix 14, is complex and lengthy. It requires that the different units in which the foods are measured be converted into standard weights.

IV.2.4. *Accounting for Leftovers*

At the time of data collection, information was obtained on the quantities left over from each dish (LQUAN). In order to be able to subtract the leftover quantities from the total amount of dish prepared, it is important for the interviewer to ensure that the leftovers are measured in the same units as the dish itself. The fraction of dish left over is computed, and deducted from 1 to get the fraction of dish consumed by the household.

Compute LFRAC = LQUAN/QUAN   *Compute fraction left over*
Compute CFRAC = 1-LFRAC   *Compute fraction consumed*
Variable label   LFRAC 'fraction left over'/
                CFRAC 'fraction consumed'

Since information on leftover quantities and, therefore, fraction consumed (CFRAC), is available only on the dish line, it next has to be copied onto each of the INGR lines for that dish.

If (linetyp = 2) CFRAC = lag (CFRAC)   *If the line is an ingredient line (LINETY = 2), set fraction consumed, CFRAC to be the same as CFRAC for the previous case*

The fraction of the dish consumed is then multiplied with the WGT of PRODUCT used in the DISH to come up with the net amount (WGT1) of PRODUCT (see Appendix 15).
Compute WGT1=WGT * CFRAC
Variable label WGT1 'net grams of ingredient'

This step should be taken after the recipes for dishes with no recipes have been imputed (see Appendix 14).

IV.2.5. *Computing Number of Adult Equivalents That Ate Each Dish*

The dietary file contains information on the ID of household resident members who were not present at the meal, as well as on guests who ate a particular dish. An adult equivalent has been computed for each member, based on age, gender, physiological status, and activity level (see section IV.1). This information is in the ADEQUIV.SYS file, which contains the household ID code and adult equivalent values for each of the household members in the data. That file presents the data in the form shown Appendix 16. The adult equivalent file is then matched with the dietary file, to include the adult equivalent information for each member of the household in the dietary file. The sum of the adult equivalents for all members of the household gives us the total adult equivalent number for the household.

Compute TOTADEQ = sum (AECAL1, AECAL2....)
Variable label 'total number of adult equivalents in a household'

The next step is to calculate the number of adult equivalents who ate each dish. The dietary file contains information on the ID of household members who did *not* eat a meal. The adult equivalent values for these members are summed to get the total value of adult equivalents not eating a meal.

For example, let AECAL1, AECAL2... be the adult equivalent values for household member IDs 1,2.... and ABAECA1, ABAECA2.... be the adult equivalent values for the household members (IDs 1,2...) *absent* from a meal. The adult equivalent value for each member is available from the adult equivalent file, which was matched with the dietary file in the previous step. Next, if a member was absent from a meal, the value for absent adult equivalent is set to be equal to the adult equivalent value for that member.

If (ABST1 = 1) ABAECA1 = AECAL1   *Find the adult equivalent values*
If (ABST2 = 1) ABAECA2 = AECAL2   *for IDs 1 and 2 (and all possible IDs). Note: the absent adult equivalent is calculated only if the member was **not present** at a meal and **did not take food** for that particular meal from the household to consume outside the household.*

Compute TABSADEQ = sum (ABAECA1, ABAECA2 ......).   * *summing to get total*
hh adult equivalents absent
Variable label TABSADEQ 'total number of adult equivalent absent from a meal'

Next, calculate adult equivalents for guests. Weighted average adult equivalent ratios are calculated for each guest age/sex category, based on population distribution by age and sex in the country. (See Appendix 17 for population distributions by age and sex and Appendix 18 for a sample calculation of weighted adult equivalent values for each guest category for Honduras). The weighted AERs for guests are multiplied by the number of guests in each category, then summed to get total guest adult equivalents who have *eaten that dish* (TGSTADEQ).

If (18M ge 1) GSTCAL1 = (18M * .970)   *Using Honduras weighted average*
If (18F ge 1) GSTCAL2 = (18F * .728)   *guest AERs from Appendix 18*
If (ADM ge 1) GSTCAL3 = (ADM * .872)   *example*
If (ADF ge 1) GSTCAL4 = (ADF * .743)
If (CHL11 ge 1) GSTCAL5 = (CHL11 * .642)
If (CHL4 ge 1) GSTCAL6 = (CHL4 * .445)
Compute TGSTADEQ = sum (GSTCAL1, GSTCAL2,   *Sum of total guest adult*
GSTCAL3, GSTCAL4, GSTCAL5, GSTCAL6).   *equivalents eating a meal*

The number of adult equivalents who have eaten a dish (DSHADEQ) can then be calculated by subtracting adult equivalents absent from a meal (TABSADEQ) from total household adult equivalents (TOTADEQ), and then adding guest adult equivalents (TGSTADEQ) to the result.

Compute DSHADEQ = TOTADEQ + TGSTADEQ - TGSTADEQ

The data file at this stage will look like the one shown in Appendix 19.

IV.2.6.   *Calculating Nutritional Content*

Nutritional values can be calculated once all of the measured ingredients in the data have been assigned net weight consumed. Nutritional values of foods can be obtained from local or international sources.[1] It is important to keep track of different sources of nutritional values used, as there tend to be large differences in reported values. Nutritional values are computed only for the ingredient lines, except in the cases of dishes that do not normally have recipes, such as ripe bananas and cheese. Nutritional value data can be prepared in several ways. It can either be in the form of a data file that can be matched with the dietary file, or it can be written in the form of command language, as shown in Appendix 20. Either way, once a conversion factor for nutrients (CALCON) is added to each line of data, the ingredient lines (LINETYP = 2) are selected, and the nutritional value calculated.

If (LINETYP = 2) CAL = CALCON * WGT1   *If data line is for an ingredient, calculate calories*

Dishes that do not normally have recipes need to be selected, and the nutritional value for the dish lines (LINETYP = 1) must be calculated.

If (PRODUCT = 100 and LINETYP = 1 and NORECIPE = 1)
 CAL = WGT1 * CALCON

The data (see Appendix 21) are then aggregated to calculate the total amount of calories per dish consumed at the household level (DSHCAL).

Aggregate outfile = *
 /break = HHID DAY MEAL DISH
 /DSHCAL = sum (CAL)
 /DSHADEQ = first (DSHADEQ)

This aggregated file now has dishes as a case; that is, one line of data will represent a single dish consumed by the household (see Appendix 22). Using this aggregated file, DSHCAL is divided by DSHADEQ to compute calories per adult equivalent obtained from each dish (DSHCALAE).

---

[1]An comprehensive list of food composition tables for most regions can be obtained from the International Network of Food Systems (INFOODS) at http://www.crop.cri.nz/foodinfo/infoods /infoods.htm, or via email to infoods@crop.cri.nz.

Compute DSHCALAE = DSHCAL/DSHADEQ

IV.2.7.   *Calculating Household Calorie Consumption*

At this stage information is available on the number of calories per adult equivalent obtained from each dish that the household consumed. The next step is to aggregate the calories obtained from different dishes consumed, and calculate the total number of calories per adult equivalent obtained during the 24-hour recall period (DAYCALAE).

    Aggregate outfile = *
     /break = HHID
     /DAYCALAE = sum (DSHCALAE)

A row in the resulting file contains the sum of calories per adult equivalent for the day of recall for each household (se Appendix 23).

IV.2.8.   *Average Daily Caloric Contribution from Breast Milk*

Using the breastfeeding status of women, an estimation of the nutritional contribution from breast milk in the diets of children should be added to the daily calories at this stage, because the amount of breast milk consumed is usually estimated on a daily basis. Since surveys of this nature only collect information on whether a woman is breastfeeding a child, the analysis is usually limited to computing average calories obtained from breast milk for different age groups. The average amount of milk produced and the average nutritional value of milk for different age groups can be obtained from literature for a similar ethnic, cultural, and socioeconomic population.

In this example from Honduras, the data included children up to four years of age who were reported to be breast-fed. It was decided that the contribution from breast milk would be computed for children who were 18 months or younger, since that was the reported average duration of breastfeeding among children in Honduras. Although children over this age may have been receiving some caloric contribution from breast milk, it is more likely that after 18 months the actual intake of breast milk for most children was limited, thus diminishing its nutritional contribution for these older children. The values noted below were used to estimate the average number of calories derived from breast milk, based on average amounts secreted and average nutritional value of breast milk for different age groups. These values, derived from a low-income, rural Guatemalan sample, were obtained from a joint World Health Organization/Food and Agriculture Organization report on breastfeeding.

Households with a breastfeeding woman are identified using information from the household composition file. The nutritional contribution of breast milk should be computed for the youngest child. Variables needed for computing the caloric contribution of breast milk to the household calories include household id (HHID), youngest child's age in years (AGE), and adult equivalent value for the youngest child (ADLTEQ).

    If (AGE le .0833) BMCAL = 305
    If (AGE gt .0833 and AGE lt .25) BMCAL = 344
    If (AGE = .25) BMCAL = 384
    If (AGE gt .25 and AGE lt .5) BMCAL = 389
    If (AGE = .5) BMCAL = 337
    If (AGE gt .5 and AGE lt .75) BMCAL = 341
    If (AGE = .75) BMCAL = 344
    If (AGE gt .75 and AGE lt 1.25) BMCAL = 341
    If (AGE = 1.25)BMCAL = 339
    If (AGE gt 1.25 and AGE lt 1.5) BMCAL = 332
    If (AGE = 1.5) BMCAL = 325

The BMCAL variable is divided by the adult equivalent for the breastfeeding child, to get the BMCALAE variable. From the above file, save HHID and BMCALAE to a file and match them with the dietary file. In the dietary file, add the new variable BMCALAE to DAYCALAE to get the total calories per adult equivalent (including breast milk) DAYCALA1 consumed by the household.

IV.3.   Calculate Percentage of Caloric Adequacy

Once the average number of calories consumed per adult equivalent by each household in the sample has been computed, it is compared to the calorie requirement of an adult equivalent to calculate the level of caloric adequacy. The daily calorie requirements for an adult equivalent for different countries are presented in Appendix 7. When the level of calorie requirement for an adult equivalent has been established (for example, 2858 for Honduras), the average calories consumed per adult equivalent (AVECALAE) is divided by the number of calories required, to compute the level of caloric adequacy. In the Honduran example, the level of caloric adequacy (CALADEQ) of a household will be computed as:

Compute CALADEQ = (AVECALAE / 2858) *100
Variable label CALADEQ '% calorie adequacy'

The final step is to determine the percent of households that are at or above 100 percent of caloric requirements.

If (CALADEQ ge 100)REQSMET = 100
If (CALADEQ lt 100)REQSMET = 0
Variable label REQSMET 'Household meets caloric requirements'
Value labels REQSMET 100 'yes' 0 'no'

For convenience, the code "100," rather than "1," is assigned to households meeting caloric requirements, so that the average of the REQSMET variable over a group of interest will directly indicate the percent of households meeting caloric requirements.[2]

For purposes of analysis it is often useful to categorize households into various levels of caloric adequacy (Appendix 24).

If (CALADEQ le 60)CALCAT = 1
If (CALADEQ gt 60 and CALADEQ le 80) CALCAT = 2.
If (CALADEQ gt 80 and CALADEQ le 100) CALCAT = 3
If (CALADEQ gt 100 and CALADEQ le 120) CALCAT = 4
If (CALADEQ gt 120) CALCAT = 5
Variable label CALCAT 'calorie adequacy category'
Value label CALCAT 1 '<= 60%' 2 '60 - 80%' 3 '80-100%' 4 '100 - 120%'
 5 '>120%'

---

[2]If a code of 1 was used, the average of REQSMET would give the proportion rather than the percent of households.

Appendix 7. Row Numbers for FAO Member Countries

Country	Row #	Country	Row #	Country	Row #
Africa		**Latin America/Caribbean**		**Near East**	
Algeria	55	Argentina	36	Afghanistan	15
Angola	3	Barbados	45	Bahrain	52
Benin	3	Bolivia	37	Egypt	51
Botswana	3	Brazil	38	Iran	52
Burkina Faso	4	Chile	39	Iraq	52
Burundi	1	Colombia	40	Jordan	52
Cameroon	6	Costa Rica	41	Kuwait	51
Cape Verde	4	Cuba	42	Lebanon	53
C.A.R.	6	Dominican Republic	42	Libya	51
Chad	8	Ecuador	39	Oman	54
Comoros	11	El Salvador	43	Qatar	54
Congo	6	Guatemala	43	Saudi Arabia	51
Côte d'Ivoire	3	Guyana	20	Syria	53
Equatorial Guinea	8	Haiti	44	U.A.E.	54
Ethiopia	2	Honduras	43	Yemen, Arab Rep.	54
Gabon	3	Jamaica	45	Yemen, P.D.R.	54
Gambia	4	Mexico	46		
Ghana	3	Nicaragua	43	**South Pacific**	
Guinea	3	Panama	47	Fiji	59
Guinea-Bissau	3	Paraguay	36	Papua New Guinea	61
Kenya	11	Peru	39		
Lesotho	11	Surinam	48		
Liberia	4	Trinidad and Tobago	48		
Madagascar	6	Uruguay	49		
Malawi	11	Venezuela	50		
Mali	8				
Mauritania	5	**Asia**			
Mauritius	54	Bangladesh	12		
Morocco	54	Bhutan	14		
Mozambique	6	Cambodia	18		
Namibia	11	China	14		
Niger	8	India	15		
Nigeria	4	Indonesia	16		
Rwanda	7	Japan	17		
Senegal	8	Laos	18		
Sierra Leone	4	North Korea	18		
Somalia	9	Malaysia	19		
Sudan	10	Mongolia	14		
Swaziland	11	Myanmar	13		
Tanzania	11	Nepal	14		
Togo	3	Pakistan	15		
Tunisia	54	Philippines	21		
Uganda	11	Sri Lanka	15		
Zaire	6	South Korea	18		
Zambia	3	Thailand	22		
Zimbabwe	3	Vietnam	22		

Appendix 8. Daily Calorie Requirement for an Adult Equivalent

An adult equivalent is defined as an adult male, 30-to-60 years old, of average weight and height for the country, with moderate activity level. For country-specific adult equivalent requirements, refer to Appendix 6 and identify the relevant Row number for this Appendix 7 table, where the relevant adult equivalent figures will be found.

Row number	Weight (kg) adult equivalent	Height (mt) adult equivalent	Daily calorie requirement for an adult equivalent	Row number	Weight (kg) adult equivalent	Height (mt) adult equivalent	Daily calorie requirement for an adult equivalent
1	57.5	1.67	2810	32	72.5	1.78	3062
2	55.6	1.66	2773	33	71.4	1.74	3087
3	64.6	1.71	2953	34	72.5	1.78	3109
4	58.2	1.71	2824	35	72.8	1.74	3117
5	60.2	1.69	2862	36	69.2	1.73	3044
6	62.9	1.73	2917	37	57.7	1.66	2813
7	57.4	1.67	2807	38	59.1	1.68	2842
8	60.5	1.70	2868	39	58.2	1.71	2822
9	56.5	1.73	2789	40	57.5	1.66	2809
10	58.2	1.68	2823	41	60.7	1.71	2874
11	59.1	1.68	2840	42	61.1	1.71	2881
12	53.1	1.65	2721	43	60.0	1.66	2858
13	53.9	1.65	2738	44	62.6	1.73	2910
14	55.4	1.70	2767	45	66.9	1.74	2996
15	51.1	1.64	2679	46	61.1	1.71	2881
16	55.7	1.68	2773	47	63.0	1.66	2918
17	62.5	1.68	2909	48	62.5	1.70	2909
18	58.0	1.68	2818	49	67.5	1.71	3009
19	55.6	1.69	2771	50	57.5	1.66	2808
20	62.1	1.70	2900	51	61.7	1.71	2893
21	53.9	1.65	2737	52	57.5	1.66	2809
22	58.8	1.68	2834	53	67.2	1.71	3002
23	78.5	1.78	3233	54	61.4	1.68	2887
24	69.2	1.73	3045	55	72.1	1.75	3105
25	71.2	1.76	3087	56	72.9	1.74	3119
26	76.3	1.78	3188	57	78.1	1.80	3225
27	75.0	1.76	3161	58	70.0	1.74	3063
28	71.2	1.76	3086	59	68.1	1.72	3024
29	71.2	1.76	3083	60	69.3	1.74	3048
30	61.9	1.68	2899	61	59.2	1.64	2845
31	77.2	1.79	3157	62	70.4	1.75	3068

Appendix 9. Calorie Requirements for Children under 10 Years of Age, by Sex

Table 1. Children Under 6 Months of Age

Age (months)	Calorie Requirement Per kg per day	Calorie requirement per day* male	female
< 1	124	470	445
1 < 2	116	550	505
2 < 3	109	610	545
3 < 4	103	655	590
4 < 5	99	695	630
5 < 6	96.5	730	670

* Based on NCHS median weights at mid-point of month.

Source: WHO, 1985, *Energy and Protein Requirements*: *Report of a Joint FAO/WHO/UNU Expert Consultation*, Geneva, World Health Organization, p. 91.

Table 2. Children 6 Months to 2 Years of Age

Age (Years)	Calorie requirement per kg per day* Male	Female	Calorie requirement per day# Male	Female
.5 < .75	109	109	850	784
.75 < 1	109	109	1003	937
1 < 1.5	108	113	1102	1074
1.5 < 2	108	113	1242	1220

* Includes allowance for infection and desirable activity level.

Based on NCHS median weights at mid-point of age range. *Source*: WHO, 1985, *Energy and Protein Requirements*: *Report of a Joint FAO/WHO/UNU Expert Consultation*. Geneva, World Health Organization, p. 180.
Source: W.P.T. James and E.C. Schofield, 1990, *Human Energy Requirements: A Manual for Planners and Nutritionists*, Oxford, Oxford Medical Publications, p. 74.

Table 3. Children 2 - 5 Years of Age

Age	Calorie requirement per kg per day*		Calorie requirement per day#	
(years)	Male	Female	Male	Female
2 < 3	104	102	1410	1310
3 < 4	99	95	1560	1440
4 < 5	95	92	1690	1540
5 < 6	92	88	1810	1630

* Based on NCHS median weights at mid-point of year.
# Based on estimated average daily energy intakes from data of Ferro-Luzzi & Durnin + 5 percent for desirable activity level.

Source: WHO, 1985, *Energy and Protein Requirements: Report of a Joint FAO/WHO/UNU Expert Consultation*. Geneva. World Health Organization, pp. 94-95.

Table 4. Children 6 - 9 Years of Age

Age	Calorie requirement per day*	
(Years)	Male	Female
6 < 7	1822	1619
7 < 8	1901	1657
8 < 9	1948	1711
9 < 10	2023	1767

* Based on estimated average daily energy intakes from data of Ferro-Luzzi & Durnin + 5 percent for desirable activity level.

Source: WHO, 1985, *Energy and Protein Requirements: Report of a Joint FAO/WHO/UNU Expert Consultation*, Geneva, World Health Organization, pp. 94-95.

Appendix 10.   Average Weight by Age and Sex for FAO Member Countries
(in kilograms)

Note: See Appendix 6 to identify relevant row number for country of interest.

Row #	Male					Female								
	14 yrs+	15 yrs+	16 yrs+	17 yrs+	Adult	10 yrs+	11 yrs+	12 yrs+	13 yrs+	14 yrs+	15 yrs+	16 yrs+	17 yrs+	Adult
1	39.8	44.9	49.4	53.1	57.5	25.2	28.0	30.0	33.5	36.8	40.0	41.9	44.9	45.4
2	38.4	43.4	47.8	51.0	55.6	25.2	28.3	31.7	33.5	38.8	41.6	43.5	44.4	44.7
3	43.3	48.5	49.9	56.3	64.6	29.8	33.6	37.6	41.6	45.3	48.1	49.8	50.4	52.0
4	43.3	48.5	53.1	56.3	58.2	31.7	35.7	40.0	44.1	47.8	50.7	52.3	52.8	53.3
5	43.3	48.5	53.1	56.3	60.2	27.3	30.7	37.6	41.6	45.3	48.1	49.8	52.8	53.0
6	45.8	49.2	53.1	56.3	62.9	33.3	35.7	40.0	44.1	47.8	52.9	54.4	54.8	55.2
7	39.7	44.7	49.2	52.8	57.4	25.2	28.1	30.0	33.5	36.8	40.0	41.9	44.8	45.4
8	40.3	45.4	52.1	60.3	60.5	27.3	30.7	34.4	38.2	45.3	48.1	52.3	52.8	53.5
9	38.4	43.4	49.9	51.0	56.5	29.8	33.6	34.4	41.6	45.3	48.1	49.8	50.4	50.5
10	40.3	45.4	53.1	56.3	58.2	27.3	30.7	34.4	38.2	41.7	48.1	52.3	52.8	53.2
11	40.3	45.4	53.1	56.3	59.1	27.3	28.3	34.4	38.2	41.7	48.1	49.8	52.8	52.8
12	38.4	43.4	47.8	51.0	53.1	23.8	26.7	30.0	33.5	36.8	39.7	41.6	42.7	42.9
13	38.4	43.4	47.8	51.0	53.9	23.8	26.7	30.0	33.5	38.8	41.6	43.5	44.4	44.7
14	43.3	45.4	49.9	53.1	55.4	27.3	30.7	34.4	38.2	41.7	44.6	46.4	47.2	48.0
15	38.4	43.4	47.8	51.0	51.1	23.8	26.7	30.0	33.5	36.8	39.7	41.6	42.7	42.9
16	38.4	43.4	47.8	51.0	55.7	23.8	26.7	30.0	35.3	36.8	39.7	41.6	42.7	44.4
17	49.5	52.3	57.0	60.3	62.5	29.8	35.7	40.0	44.1	47.8	50.7	52.3	52.8	52.8
18	43.3	48.5	53.1	56.3	58.0	29.8	30.7	37.6	41.6	41.7	44.6	46.4	47.2	49.0
19	41.6	45.4	49.9	51.9	55.6	25.3	29.3	31.9	36.5	40.0	44.6	46.4	47.2	48.1
20	43.3	47.0	53.1	56.3	62.1	28.5	32.1	37.6	41.6	45.3	48.1	49.8	52.8	53.0
21	38.4	43.4	47.8	51.0	53.9	23.8	28.3	31.7	35.3	38.8	41.6	43.5	44.4	45.7
22	38.4	43.4	47.8	51.0	58.8	23.8	26.7	30.0	35.3	36.8	41.6	43.5	44.4	45.0
23	53.8	59.5	62.2	65.5	78.5	33.3	39.2	43.8	48.3	52.1	55.0	56.4	56.7	56.9
24	51.7	55.0	57.0	60.3	69.2	33.3	37.5	42.0	46.3	50.0	52.9	54.4	54.8	55.2
25	53.8	59.5	64.4	67.8	71.2	34.7	39.2	43.8	48.3	52.1	55.0	56.4	59.7	61.5
26	51.7	57.3	62.2	65.5	76.3	31.7	35.7	42.0	46.3	52.1	52.9	54.4	56.7	57.3
27	49.5	57.3	59.8	63.1	75.0	31.7	35.7	40.0	46.3	50.0	50.7	52.3	52.8	53.5
28	51.7	59.5	62.2	65.5	71.2	33.3	37.5	43.8	48.3	52.1	55.0	56.4	56.7	57.4
29	49.5	55.0	59.8	63.1	71.2	33.3	39.2	46.7	51.3	52.1	55.0	56.4	56.7	56.7
30	43.3	48.5	53.1	56.3	61.9	27.3	33.6	37.6	41.6	45.3	48.1	52.3	54.8	56.0
31	51.7	57.3	62.2	65.5	77.2	33.3	37.5	42.0	48.3	52.1	55.0	56.4	56.7	58.2
32	51.7	57.3	62.2	65.5	72.5	33.3	37.5	42.0	48.3	52.1	52.9	56.4	56.7	58.0

Row #				Male					Female							
				14 yrs+	15 yrs+	16 yrs+	17 yrs+	Adult	10 yrs+	11 yrs+	12 yrs+	13 yrs+	14 yrs+	15 yrs+	16 yrs+	17 yrs+	Adult
33				53.8	57.8	62.2	65.5	71.4	34.7	39.2	43.8	48.3	50.0	52.9	54.4	54.8	56.4
34				51.7	55.0	59.8	60.3	72.5	33.3	37.5	42.0	46.3	52.1	55.0	56.4	56.7	58.0
35				51.7	57.3	59.8	63.1	72.9	33.3	37.5	43.8	48.3	52.1	55.0	56.4	56.7	56.7
36				51.7	57.3	59.8	63.1	69.2	34.7	39.2	43.8	46.3	50.0	52.9	54.4	54.8	55.6
37				40.3	43.4	49.9	53.1	57.5	27.3	30.7	34.4	38.2	45.3	48.1	52.3	52.8	53.0
38				40.3	48.5	53.1	56.3	59.1	29.8	35.7	37.6	41.6	45.3	48.1	49.8	50.4	50.9
39				46.9	52.3	53.1	56.3	58.2	31.7	35.7	40.0	41.6	47.8	48.1	49.8	50.4	51.0
40				43.3	48.5	53.1	56.3	57.5	25.2	28.3	31.7	35.3	38.8	44.6	49.8	50.4	50.9
41				46.9	48.5	53.1	56.3	60.7	29.8	33.6	37.6	41.6	45.3	48.1	49.8	50.4	50.5
42				43.3	48.5	53.1	56.3	61.1	29.8	33.6	37.6	41.6	45.3	48.1	49.8	50.4	50.5
43				40.3	43.4	49.9	53.1	60.0	27.3	30.7	34.4	38.2	45.3	48.1	52.3	52.8	53.0
44				46.9	52.3	53.1	60.3	62.6	33.3	37.5	43.8	46.3	50.0	52.9	54.4	54.8	55.1
45				38.4	43.4	49.9	53.1	66.9	27.3	30.7	34.4	41.6	45.3	48.1	49.8	52.8	53.2
46				46.9	52.3	53.1	56.3	61.1	31.7	35.7	40.0	41.6	47.8	48.1	49.8	50.4	51.0
47				43.3	48.5	53.1	56.3	63.0	25.2	28.3	31.7	35.3	38.8	44.6	49.8	50.4	52.0
48				43.3	46.6	53.1	56.3	62.5	28.8	32.4	37.6	41.6	45.3	48.1	49.8	52.8	53.0
49				49.5	55.0	57.0	60.3	67.5	33.3	35.7	40.0	46.3	50.0	52.9	56.4	56.7	57.6
50				40.3	48.5	53.1	56.3	57.5	29.8	33.6	37.6	41.6	45.3	48.1	49.8	50.4	52.8
51				46.9	52.3	57.0	60.3	61.7	29.8	33.6	37.6	44.1	50.0	52.9	54.4	56.7	56.7
52				40.3	45.4	49.9	53.1	57.5	25.2	28.3	31.7	38.2	41.7	48.1	52.3	54.8	55.7
53				46.9	55.0	57.0	60.3	67.2	31.7	33.6	40.0	44.1	47.8	52.9	54.4	54.8	56.1
54				43.3	48.5	53.1	56.3	61.1	27.3	33.6	37.6	41.6	45.3	48.1	52.3	54.8	56.0
55				56.9	59.5	64.4	67.8	72.1	37.0	41.9	46.7	51.3	52.1	55.0	56.4	56.7	56.8
56				46.9	52.4	57.1	60.3	72.9	31.7	35.7	40.0	44.1	47.8	50.7	52.3	54.8	55.9
57				53.8	59.5	64.4	67.8	78.1	34.7	39.2	43.8	48.3	52.1	55.0	56.4	56.7	56.7
58				51.7	57.3	62.2	65.5	70.0	33.3	37.5	43.8	48.3	50.0	52.9	54.4	54.8	55.3
59				43.3	48.5	53.1	58.3	68.1	28.6	32.2	37.6	41.6	46.6	50.5	53.1	56.4	56.8
60				56.9	57.3	59.8	63.1	69.3	34.7	39.2	43.8	48.3	50.0	52.9	56.4	56.7	56.7
61				38.4	43.4	47.8	53.1	59.2	23.8	26.7	30.0	33.5	36.8	39.7	43.5	47.2	47.3
62				52.4	57.3	62.1	65.6	70.4	34.5	38.6	42.4	47.1	50.3	52.2	52.8	54.0	61.4

Appendix 11.   Dietary File

HHID 1	Meal 2	Abst1* 3	18M 4	18F 5	AdM/F# 6	Chl4/11# 7	Dnum 8	Dish 9	Ingr 10	Quan 11	Unit 12	Lquan 13	Lunit 14	Src 15	Linetyp 16
21	1	1	0	0	0	0	1	1003	1003	35	19	4	A2	1	1
21	1	1	0	0	0	0	1	1003	1001	1300	6	0	0	2	2
21	1	1	1	0	0	0	2	1403	1403	900	6	0	0	0	1
21	1	1	1	0	0	0	2	1403	403	.00	0	0	0	1	2
21	1	1	1	0	0	0	2	1403	260	110	6	0	0	1	2
21	2	0	0	0	0	0	1	2170	2170	5	7	0	0	0	1
21	2	0	0	0	0	0	1	2170	170	5	7	0	0	12	2
21	2	0	0	0	0	0	1	2170	240	70	6	0	0	1	2

Appendix 12. Dietary File

HHID 1	Meal 2	Abst1* 3	18M 4	18F 5	AdM/F# 6	Chl4/11# 7	Dnum 8	Dish 9	Ingr 10	Quan 11	Unit 12	Lquan 13	Lunit 14	Src 15	Linetyp 16	Product 17	Form 18
21	1	1	0	0	0	0	1	1003	1003	35	19	4	19	1	1	3	1
21	1	1	0	0	0	0	1	1003	1001	1300	6	0	0	2	2	1	1
21	1	1	1	0	0	0	2	1403	1403	900	6	0	0	0	1	403	1
21	1	1	1	0	0	0	2	1403	403	.00	0	0	0	1	2	403	0
21	1	1	1	0	0	0	2	1403	260	110	6	0	0	1	2	260	0
21	2	0	0	0	0	0	1	2170	2170	5	7	0	0	0	1	170	2
21	2	0	0	0	0	0	1	2170	170	5	7	0	0	12	2	170	0
21	2	0	0	0	0	0	1	2170	240	70	6	0	0	1	2	240	0

Appendix 13. Dietary File

HHID 1	Meal 2	Abst1* 3	18M 4	18F 5	AdM/F# 6	Chl4/11# 7	Dnum 8	Dish 9	Ingr 10	Quan 11	Unit 12	Lquan 13	Lunit 14	Src 15	Linetyp 16	Product 17	Form 18	Wgtfact 19	Wgt 20
21	1	1	0	0	0	0	1	1003	1003	35	19	4	19	1	1	3	1	33.92	1187.2
21	1	1	0	0	0	0	1	1003	1001	1300	6	0	0	2	2	1	1	.60	780
21	1	1	1	0	0	0	2	1403	1403	900	6	0	0	0	1	403	1	.%	.
21	1	1	1	0	0	0	2	1403	403	.00	0	0	0	1	2	403	0	.	.
21	1	1	1	0	0	0	2	1403	260	110	6	0	0	1	2	260	0	1.0886	119.746
21	2	0	0	0	0	0	1	2170	2170	5	7	0	0	0	1	170	2	1+	5
21	2	0	0	0	0	0	1	2170	170	5	7	0	0	12	2	170	0	1+	5
21	2	0	0	0	0	0	1	2170	240	70	6	0	0	1	2	240	0	1.166	81.62

% / # Coffee was not measured, as it does not contribute any calories to the diet.
+ For eggs, units are used instead of weights.

Appendix 14. Dietary File

HHID 1	Meal 2	Dnum 3	Dish 9	Ingr 10	Quan 11	Unit 12	Lquan 13	Lunit 14	Src 15	Linetyp 16	Product 17	Form 18	Wgtfact 19	Wgt 20	Linetype_n 21	Norecipe 22
21	1	1	1003	1003	35	A2	4	A2	1	1	3	1	33.92	1187.2	2	0
21	1	1	1003	1001	1300	6	0	0	2	2	1	1	.60	780	1	0
21	1	2	1403	1403	900	6	0	0	0	1	403	1	.%	.	2	0
21	1	2	1403	403	.00	0	0	0	1	2	403	0	.	.	2	0
21	1	2	1403	260	110	6	0	0	1	2	260	0	1.0886	119.746	1	0
21	2	1	2170	2170	5	7	0	0	0	1	170	2	1+	5	2	0
21	2	1	2170	170	5	7	0	0	12	2	170	0	1+	5	2	0
21	2	1	2170	240	70	6	0	0	1	2	240	0	1.166	81.62	1	0
21	2	2	2040	2040	220	6	0	0	22	1	40	2	.3865	85.03	1	1
21	2	3	1403	1403	500	6	0	0	0	1	403	1	.	.	2	0

Appendix 15. Imputing Average Recipes for Dishes without Recipes

To impute an average recipe for dishes without recipes in the data, start with the dietary file that has the NORECIPE labels and weights (WGT) of ingredients converted into grams. The procedure described below involves computing proportions of ingredients (by weight) used for preparing a certain amount of a dish. First, recipes are calculated at the household level. If the household does not have a matching recipe, the recipe should be calculated at the next level of sample stratification (for example, a cluster of households, a block, or a region).

In the first step, the unit and quantity on the dish line is recoded as dish quantity (DSHQUAN) and dish unit (DSHUNIT). This information is then copied onto all the ingredients belonging to that particular dish. This information will be used for computing the ingredient proportions.

    If (LINETYP = 1) DSHQUAN = QUAN
    If (LINETYP = 1) DSHUNIT = UNIT
    If (LINETYP = 2) DSHUNIT = lag (DSHUNIT)
    If (LINETYP = 2) DSHQUAN = lag (DSHQUAN)

Then, the proportion of ingredients in each recipe (RECPROP) is calculated and aggregated to obtain a mean recipe for households in the sample. RECPROP is aggregated on household id, dish id, dish unit, and ingredient, to compute specific proportions for each unit of measurement of the dish. For example, if bread was measured as a small loaf and a large loaf, specific proportions of flour and other ingredients went into the preparation of small and large loaves. In this example the proportions are calculated based on dish *quantities*, rather than dish weight, because the information on dish weight conversions in the standard files was not complete.

    Select if (NORECIPE = 0)   *Select only those cases*
    If (DSHQUAN gt 0) and (LINETYP = 2) *that have recipes*
    RECPROP = (WGT/DSHQUAN)   *Use gross weight, which*
    aggregate outfile = *   *includes leftovers*
      /break = HHID DISH DSHUNIT INGR
      /MRECPROP = mean(RECPROP)

Once the household-level average recipe proportions have been computed, the ingredients in each recipe are numbered in consecutive order, in order to identify each ingredient in a recipe by a number, and to know the maximum number of possible ingredients in any recipe in the data. The ingredient ordering sequence does not matter (for fried eggs, oil could be numbered one and eggs numbered two, or vice versa) as long as all ingredients in a recipe are identified by an ingredient number.

    If (DISH = INGR) INGORD = 0
    If (DISH ne INGR) INGORD = (lag(INGORD) + 1)
    Var label INGORD 'order of ingredient in a recipe'
    Sort cases by HHID DISH DSHUNIT INGORD
    Save outfile = 'recprop.sav'

Ingredient number 1 for each dish is then saved in one file, ingredient number 2 in another file and so on. This will enable the subsequent matching of the ingredients to their specific dishes in the file that contains dishes with no recipes.

```
Get file = 'recprop.sav'
Select if (INGORD = 1)
Sort case by HHID DISH DSHUNIT
Save outfile = 'ing1.sav'

Get file = 'recprop.sav'
Select if (INGORD = 2)
Sort case by HHID DISH DSHUNIT
Save outfile = 'ing2.sav'

Get file = 'recprop.sav'
Select if (INGORD = N)
Sort case by HHID DISH DSHUNIT
Save outfile = 'ingN.sav'
```

Using the original dietary file, cases that do not have recipes are then selected to match the new recipes with them.

```
Get file = 'dietary.sav'
Select if (NORECIPE = 1)
Save outfile = 'norecipe.sav'
```

Get file = 'norecipe.sav'/drop = INGR LINETYP   *Drop these, as we will be matching
                                                        new list of ingredients to these lines.
```
Sort cases by HHID DISH DSHUNIT
Save outfile = 'norecipe1.sav'
```

Using the file just saved, match the different files containing the various ingredients with the recipes. The output will be ingredient lines for different dishes for which recipe matches could be found. All ingredients numbered 1 will be saved in one file, and all ingredients numbered 2 in the second file, and so on.

```
Match file file = 'norecipe1.sav'
 /table = 'ing1.sav' /by HHID DISH DSHUNIT
 /map
Sort cases by HHID DAY  DSHNUM
Save outfile = 'withrec1.sav'

Match file file = 'norecipe1.sav'
 /table = 'ing2.sav' /by HHID DISH DSHUNIT
 /map
Sort cases by HHID DAY DSHNUM.
Save outfile = 'withrec2.sav'
```

```
Match file file = 'norecipe1.sav'
 /table = 'ingN.sav' /by HHID DISH DSHUNIT
 /map
Sort cases by HHID DAY  DSHNUM
Save outfile = 'withrecN.sav'
```

Files containing the ingredient lines are then added to the file containing no recipes. The '/BY' qualifier in the "add" command is used with the variables HHID DSHNUM so that each ingredient line is added after the specific recipe to which it belongs.

```
Get file = 'norecipe.sav'
Sort case by HHID DSHNUM
Save outfile = 'norecipe.sav'

Add file file = 'norecipe.sav'
   /in = in0                            *The in = in0 etc. allows us
   /file = 'withrec1.sav'                to put a flag on each line to
   /in = in1                            identify which file that particular
   /file = 'withrec2.sav'               line came from
   /in = in2
   /file = 'withrecN.sav'
   /in = inN
   /by HHID DSHNUM.
Compute extra = 0
If (sysmis(INGR)) extra = 1           *There will be extra lines of data
                                       because each dish will have the
                                       maximum possible number of
                                       ingredient lines added after it

Select if (extra = 0)
Save outfile = 'hhrec.sav'
```

The file now has recipes for the dishes that had matches at the household level. To get the recipes for others, the process is repeated for the next level of data stratification—CENTER, in this example. First, the cases lacking matching household level recipes are separated out, using the commands that created the NORECIPE variable.

```
Get file = 'hhrec.sav'
Do if (DISH = INGR )
  compute LINETYP = 1
Else
  Compute LINETYP = 2
End if
Sort cases by HHID DSHNUM LINETYP
Create LINETY_N = lead (LINETYP, 1)
Var label LINETY_N 'value linetyp nxt case'
Compute NOHHREC = 0
If (LINETY_N = 1 and LINETYP = 1) NOHHREC = 1
```

37

Var label NOHHREC 'no hh recipe'
Value label NOHHREC 0 'with recipe' 1 'no recipe'
Save outfile = 'hhrec.sav'

Next, create average recipes at the cluster (or center) level.

Get file = 'dietary.sav'
If (LINETYP = 1) DSHQUAN = QUAN
If (LINETYP = 1) DSHUNIT = UNIT
If (LINETYP = 2) DSHUNIT = lag(DSHUNIT)
If (LINETYP = 2) DSHQUAN = lag(DSHQUAN)
Select if (NORECIPE = 0).=
If (DSHQUAN gt 0) and (LINETYP = 2)
  RECPROP = (WGT/DSHQUAN)
Aggregate outfile = *
  /break = CENTER DISH DSHUNIT INGR
  /CRECPROP = MEAN(RECPROP)
Save outfile = 'crecprop.sav'

Once again, the ingredients in these average recipes are ordered.

Get file = 'crecprop.sav'
Do if (DISH = INGR)
  Compute LINETYP = 1
Else
  Compute LINETYP = 2
End if
Sort cases by CENTER DISH DSHUNIT LINETYP
If (DISH = INGR) INGORD = 0
If (DISH ne INGR) INGORD = (lag(INGORD) + 1)
Sort cases by CENTER DISH DSHUNIT INGORD
Save outfile = 'crecprop.sav'

The ingredients ordered number 1 for all recipes are saved in one file, and ingredients ordered number 2 in the second file, and so on.

Get file = 'crecprop.sav'
Select if (INGORD = 1)
Sort case by CENTER DISH DSHUNIT
Save outfile = 'ing1.sav'

Get file = 'crecprop.sav'
Select if (INGORD = 2)
Sort case by CENTER DISH DSHUNIT
Save outfile = 'ing2.sav'

Get file = 'crecprop.sav'
Select if (INGORD = N)

Sort case by CENTER DISH DSHUNIT
Save outfile = 'ingN.sav'

Using the file in which the household-level recipes were matched, separate out the dishes that still do not have a recipe.

Get file = 'hhrec.sav'/drop = in0 to extra wgt   *Drop these variables, as this file will be used to match the center-level recipes, which will have new values for these variables*

Select if (NOHHREC = 1)
Save outfile = 'nohhrece.sav'

Next, this file is prepared so that the ingredient lines can be matched to the dish line, by dropping the old variables, for which there will be new values in the matched file.

Get file = 'nohhrece.sav'/drop = INGR INGORD LINETYP
Sort cases by CENTER DISH DSHUNIT
Save outfile = 'nohhrec1.sav'

Each file containing ingredients of the dishes is matched, one at a time.

Match file file = 'nohhrec1.sav'
 /table = 'ing1.sav' /by CENTER DISH DSHUNIT
 /map.
Sort cases by CENTER DSHNUM
Save outfile = 'withrec1.sav'

Match file file = 'nohhrec1.sav'
 /table = 'ing2.sav' /by CENTER DISH DSHUNIT
 /map.
Sort cases by CENTER DSHNUM
Save outfile = 'withrec2.sav'

Match file file = 'nohhrec1.sav'
 /table = 'ingN.sav' /by CENTER DISH DSHUNIT
 /map.
Sort cases by CENTER DSHNUM
Save outfile = 'withrecN.sav'

Get file = 'nohhrece.sav'
Sort cases by CENTER DSHNUM
Save outfile = 'nohhrece.sav'

Add file = 'nohhrece.sav'
    /in = in0
   /file = 'withrec1.sav'
    /in = in1

39

```
      /file = 'withrec2.sav'
      /in =in2
      /file = 'withrecNsav'
       /in = inN
      /by CENTER DSHNUM.
    Compute EXTRA = 0
    If (sysmis(INGR)) EXTRA = 1
    Select if (EXTRA = 0)
    Save outfile = 'centrec.sav'
```

At the end of this step, once again separate out cases lacking center-level recipes, and repeat the iterations as above for the next level of sample stratification (e.g., region). Once recipes have been found for all the cases, the information in these files is added to the dietary file.

```
    Get file = 'dietary.sav'
    Select if (NORECIPE = 0)                        *All dishes with recipe
    Save outfile = 'first.sav'


    Get file = 'hhrec.sav'/drop = IN0 to EXTRA WGT CENTER INGORD LINETY_N
    select if (NOHHREC = 0)                          *Dishes with household recipes
    If (LINETYP = 2)WGT = MRECPROP*DSHQUAN
    Save outfile = 'second.sav'

    Get file = 'centrec.sav'/drop= IN0 to EXTRA
      CENTER INGORD LINETY_N
    Select if (NOCREC = 0)                           *Dishes with center-level recipes, last
                                                      level in this example

    If (LINETYP = 2) WGT = CRECPROP*DSHQUAN
    Save outfile = 'third.sav'
```

If recipes were imputed at other levels of data stratification, those files should also appear here.

Next, the dishes that normally do not have recipes are selected and given a new LINETYP code so that their nutritional values can be calculated.

```
    Get file =  'dietary.sav'
    Select if (NORECIPE = 1)
    Sort cases by HHID DSHNUM
    Save outfile =  'fourth.sav'

    Match file file =  'fourth.sav'
     /table =  'third.sav'/by = HHID DSHNUM          *Last level at which the
     /map.                                            recipes were imputed
```

Select if (nocrec = 1).   *Select those dishes for which we did
                                                          not find any recipes*

If (nocrec = 1 and (DISH = 100 or DISH = 139 or ....)) LINETYP = 3.
                                                          Dishes that normally lack recipes

Save outfile = 'c:\temp\fourth.sav'

Add file file = 'first.sav'
 /file = 'second.sav'
 /file = 'third.sav'
 /file = 'fourth.sav'.
Save outfile = 'recepall.sav'

Appendix 15-A.   **Dietary File**

HHID 1	Meal 2	Dnum 8	Dish 9	Ingr 10	Quan 11	Unit 12	Linetyp 16	Product 17	Form 18	Wgtfact 19	Wgt 20	Linety_n 21	Norecipe 22	Dshquan 23	Dshunit 24
21	1	1	1003	1003	35	19	1	3	1	33.92	1187.2	2	0	35	19
21	1	1	1003	1001	1300	6	2	1	1	.60	780	1	0	35	19
21	1	2	1403	1403	900	6	1	403	1	.	.	2	0	900	6
21	1	2	1403	403	.00	0	2	403	0	.	.	2	0	900	6
21	1	2	1403	260	110	6	2	260	0	1.0886	119.746	1	0	900	6
21	2	1	2170	2170	5	7	1	170	2	1	5	2	0	5	7
21	2	1	2170	170	5	7	2	170	0	1	5	2	0	5	7
21	2	1	2170	240	70	6	2	240	0	1.166	81.62	1	0	5	7
21	2	2	2040	2040	220	6	1	40	2	.3865	85.03	1	1	220	6
21	2	3	1403	1403	500	6	1	403	1	.	.	2	0	500	6

Appendix 15-B.   **Household Recipe Proportions**

HHID 1	Dish 2	Dshunit 3	Ingr 4	Mrecprop 5	Ingord
21	1003	19	1003	33.92	0
21	1003	19	1001	22.28	1
21	1403	6	1403	.	0
21	1403	6	403	.	1
21	1403	6	260	.13305	2
21	2170	7	2170	1	0
21	2170	7	170	1	1
21	2170	7	240	16.324	2
21	2040	6	2040	.3865	0
21	2040	6	040	.2272	1
21	2040	6	240	.04545	2
21	1403	6	1403	.	0

   To show the computation steps, the proportions in this table were computed assuming that every time the household prepared the above dishes, they used the recipes given in Appendix 14-A. In practice, this may not be the case.

   File containing ingredient number 1 from all recipes ING1.SAV

HHID 1	Dish 2	Dshunit 3	Ingr 4	Mrecprop 5	Ingord 6
21	1003	19	1	22.28	1
21	1403	6	403	.	1
21	2170	7	170	1	1
21	2040	6	40	.2272	1

File containing ingredient number 2 from all recipes ING2.SAV

HHID	Dish	Dshunit	Ingr	Mrecprop	Ingord
1	2	3	4	5	
21	1403	6	260	.13305	2
21	2170	7	240	16.324	2
21	2040	6	240	.04545	2

File containing dishes with no recipes NORECIPE.SAV

HHID	Meal	Dnum	Dish	Ingr	Quan	Unit	Linetyp	Product	Form	Wgtfact	Wgt	Linety_n	Norecipe	Dshquan	Dshunit
1	2	8	9	10	11	12	16	17	18	19	20	21	22	23	24
21	2	2	2040	2040	220	6	1	40	2	.3865	85.03	1	1	220	6
21	2	5	5476	5476	4	7	1	476	5	.	.	1	1	4	7

File containing dishes with no recipes NORECIPE1.SAV without INGR and LINETYP Variables

HHID	Meal	Dnum	Dish	Quan	Unit	Form	Wgtfact	Wgt	Linety_n	Norecipe	Dshquan	Dshunit
1	2	8	9	11	13\2	18	19	20	21	22	23	24
21	2	2	2040	220	6	2	.3865	85.03	1	1	220	6
21	2	5	5476	4	7	5	.	.	1	1	4	7

File containing ingredient 1 for all recipes WITHREC1.SAV

HHID	Meal	Dnum	Dish	Norecipe	Dshquan	Dshunit	Ingr	Mrecprop	Ingord
1	2	8	9	22	23	24	25	26	27
21	2	2	2040	1	220	6	040	.2272	1
22	3	4	1435	1	12	2	180	.5646	1

File containing ingredient 2 for all recipes WITHREC2.SAV

HHID	Meal	Dnum	Dish	Norecipe	Dshquan	Dshunit	Ingr	Mrecprop	Ingord
1	2	8	9	22	23	24	25	26	27
21	2	2	2040	1	220	6	240	.04545	2
22	3	4	1435	1	12	2	105	.245	2

File containing household recipes HHREC.SAV

HHID	Meal	Dnum	Dish	Norecipe	Dshquan	Dshunit	Ingr	Mrecprop	Ingord
1	2	8	9	22	23	24	25	26	27
21	2	2	2040	1	220	6	2040	.	
21	2	2	2040	1	220	6	040	.2272	1
21	2	2	2040	1	220	6	240	.04545	2
22	3	4	1435	1	12	2	180	.5646	1
22	3	4	1435	1	12	2	105	.245	2

Files for cluster-level recipes will be similar to those displayed above.

Appendix 16.   **Dietary File**

HHID 1				Meal 2	Dnum 8	Dish 9	Ingr 10	Quan 11	Unit 12	Lquan 13	Lunit 14	Src 15	Linetyp 16	Product 17	Form 18	Wgtfact 19	Wgt 20	Linety_n 21	Norecipe 22	Lfrac 23	Cfrac 24	Wgt 25
21	1	1	1003	1003	35	A2	4	A2	1	1	3	1	33.92	1187.2	2	0	.11429	.88571	1051.34			
21	1	1	1003	1001	1300	6	0	0	2	2	1	1	.60	780	1	0	.11429	.88571	690.854			
21	1	2	1403	1403	900	6	0	0	0	1	403	1	.	.	2	0	0	1	.			
21	1	2	1403	403	.00	0	0	0	1	2	403	0	.	.	2	0	0	1	.			
21	1	2	1403	260	110	6	0	0	1	2	260	0	1.0886	119.746	1	0	0	1	119.746			
21	2	1	2170	2170	5	7	0	0	0	1	170	2	1	5	2	0	0	1	5			
21	2	1	2170	170	5	7	0	0	12	2	170	0	1	5	2	0	0	1	5			
21	2	1	2170	240	70	6	0	0	1	2	240	0	1.166	81.62	1	0	0	1	81.62			
21	2	2	2040	2040	220	6	0	0	22	1	40	2	.3865	85.03	1	1	0	1	85.03			
21	2	3	1403	1403	500	6	0	0	0	1	403	1	.	.	2	0	0	1	.			

Appendix 17.   **Adult Equivalent File**

HHID	aecal1*	aecal2	aecal3
21	1.18	.959	.339
22	.871	.924	.410
23	.718	.888	.482
24	.838	1.106	.871

*There will be as many variables in the data as there are maximum numbers of household members.

Appendix 18. Population Distribution (proportions) by Age and Sex for Selected Countries, 1997

COUNTRY	SEX	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18-29	30-59	60+	Total Population
Afghanistan	Male	.038	.034	.032	.031	.030	.030	.029	.028	.027	.027	.025	.025	.024	.023	.023	.022	.022	.021	.209	.255	.046	12,223,573
	Female	.038	.035	.033	.032	.030	.031	.029	.029	.028	.027	.026	.025	.025	.024	.023	.023	.022	.021	.208	.248	.044	11,514,512
Albania	Male	.023	.023	.023	.023	.024	.025	.026	.025	.025	.025	.024	.024	.024	.024	.023	.023	.022	.021	.167	.323	.084	1,580,997
	Female	.019	.019	.020	.020	.020	.021	.022	.022	.022	.021	.021	.021	.021	.020	.020	.019	.018	.019	.204	.335	.096	1,712,255
Algeria	Male	.027	.027	.026	.026	.026	.026	.026	.026	.025	.025	.024	.027	.028	.027	.026	.025	.024	.023	.226	.254	.054	15,067,956
	Female	.027	.026	.026	.026	.026	.026	.025	.025	.025	.025	.024	.027	.027	.027	.026	.025	.024	.023	.223	.257	.062	14,762,414
Angola	Male	.040	.036	.035	.034	.033	.032	.031	.030	.029	.028	.026	.025	.024	.023	.022	.021	.021	.019	.194	.251	.043	5,317,767
	Female	.039	.036	.035	.034	.032	.032	.031	.030	.028	.027	.026	.025	.024	.023	.022	.021	.021	.020	.200	.243	.051	5,231,080
Argentina	Male	.020	.020	.020	.019	.019	.019	.019	.019	.019	.019	.019	.019	.018	.018	.018	.019	.019	.020	.196	.342	.120	17,679,895
	Female	.019	.019	.019	.018	.018	.018	.018	.018	.018	.018	.018	.017	.017	.017	.017	.018	.018	.019	.187	.335	.155	18,117,641
Armenia	Male	.017	.016	.015	.015	.017	.019	.021	.021	.021	.021	.021	.022	.022	.021	.020	.019	.019	.019	.196	.352	.107	1,694,695
	Female	.015	.014	.014	.014	.015	.018	.019	.019	.019	.019	.019	.020	.020	.019	.018	.018	.017	.017	.179	.370	.135	1,770,916
Azerbaijan	Male	.022	.021	.021	.022	.022	.024	.024	.024	.023	.023	.023	.023	.023	.022	.020	.020	.020	.019	.214	.308	.084	3,770,958
	Female	.020	.020	.020	.020	.020	.022	.022	.022	.021	.020	.021	.021	.020	.019	.018	.018	.018	.017	.193	.334	.115	3,964,960
Bangladesh	Male	.028	.026	.026	.025	.026	.026	.026	.025	.025	.025	.024	.024	.025	.025	.025	.025	.024	.023	.222	.273	.054	64,360,139
	Female	.028	.027	.026	.026	.026	.026	.026	.026	.025	.025	.024	.024	.025	.025	.025	.025	.025	.023	.227	.268	.049	60,980,122
Belarus	Male	.013	.013	.012	.012	.013	.014	.015	.016	.017	.017	.017	.018	.017	.018	.017	.016	.016	.016	.181	.405	.136	4,914,444
	Female	.011	.011	.011	.011	.011	.012	.012	.013	.014	.014	.015	.015	.015	.015	.015	.014	.014	.014	.161	.383	.220	5,525,472
Belgium	Male	.013	.012	.012	.012	.013	.013	.013	.013	.013	.012	.012	.012	.012	.012	.012	.013	.013	.013	.163	.425	.187	4,991,829
	Female	.011	.011	.011	.011	.012	.012	.012	.012	.012	.011	.011	.011	.011	.011	.011	.012	.012	.012	.152	.399	.244	5,211,854
Benin	Male	.044	.041	.039	.037	.036	.035	.034	.033	.031	.030	.029	.028	.027	.026	.025	.024	.023	.022	.215	.189	.033	2,882,399
	Female	.041	.038	.037	.035	.034	.033	.032	.031	.030	.028	.027	.026	.025	.024	.024	.023	.022	.021	.200	.225	.041	3,019,779
Bhutan	Male	.035	.032	.031	.030	.029	.028	.027	.027	.026	.025	.024	.023	.023	.022	.021	.021	.020	.020	.202	.272	.062	961,767
	Female	.035	.032	.031	.030	.029	.028	.027	.026	.025	.024	.024	.023	.022	.021	.021	.020	.020	.019	.201	.278	.064	903,424
Bolivia	Male	.032	.030	.029	.029	.028	.028	.027	.027	.027	.026	.026	.025	.025	.024	.024	.023	.023	.022	.207	.257	.059	3,783,842
	Female	.030	.029	.028	.027	.027	.027	.026	.026	.026	.025	.025	.024	.024	.023	.023	.022	.022	.021	.208	.270	.068	3,886,026
Bosnia and Herzegovina	Male	.007	.006	.006	.007	.008	.011	.015	.016	.017	.018	.018	.018	.018	.018	.018	.018	.019	.018	.173	.392	.178	1,275,669
	Female	.006	.006	.006	.006	.007	.008	.013	.014	.015	.015	.015	.015	.016	.016	.016	.016	.017	.017	.140	.421	.216	1,332,065

Appendix 18 cont. Population Distribution (proportions) by Age and Sex for Selected Countries, 1997

COUNTRY	SEX	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18-29	30-59	60+	Total Population
Botswana	Male	.033	.032	.031	.031	.031	.030	.030	.028	.028	.028	.028	.028	.028	.027	.027	.026	.026	.025	.227	.211	.045	726,402
	Female	.030	.029	.029	.028	.028	.028	.027	.026	.026	.026	.026	.025	.025	.025	.025	.024	.024	.023	.227	.237	.062	774,363
Brazil	Male	.020	.020	.020	.020	.020	.019	.019	.020	.021	.022	.022	.021	.021	.021	.022	.023	.022	.022	.235	.329	.062	81,417,819
	Female	.019	.019	.019	.019	.019	.018	.018	.019	.020	.021	.020	.020	.019	.020	.021	.021	.021	.021	.226	.337	.084	83,093,547
Bulgaria	Male	.009	.009	.009	.010	.011	.011	.012	.012	.013	.013	.013	.014	.014	.013	.014	.014	.014	.015	.186	.402	.191	4,239,177
	Female	.008	.008	.008	.009	.010	.010	.011	.011	.012	.012	.012	.012	.012	.012	.013	.013	.013	.013	.172	.394	.232	4,413,568
Burkina Faso	Male	.044	.041	.039	.037	.036	.035	.034	.033	.032	.031	.029	.028	.027	.026	.025	.024	.023	.023	.207	.181	.043	5,298,042
	Female	.041	.038	.036	.035	.033	.033	.032	.031	.030	.029	.028	.027	.026	.025	.024	.023	.022	.021	.196	.219	.053	5,593,117
Burma	Male	.028	.027	.027	.026	.026	.026	.025	.025	.024	.024	.024	.023	.023	.022	.022	.022	.021	.021	.217	.290	.058	23,495,319
	Female	.027	.026	.026	.026	.025	.025	.024	.024	.024	.023	.023	.022	.022	.022	.021	.021	.020	.020	.211	.298	.069	23,326,624
Burundi	Male	.040	.038	.037	.035	.034	.033	.033	.032	.031	.030	.029	.028	.027	.026	.025	.024	.023	.022	.196	.223	.034	2,978,722
	Female	.038	.036	.036	.034	.033	.032	.032	.031	.030	.029	.028	.027	.026	.025	.024	.023	.022	.021	.188	.235	.049	3,073,892
Cambodia	Male	.042	.039	.037	.036	.035	.034	.033	.032	.031	.029	.028	.027	.026	.025	.024	.023	.022	.020	.198	.220	.039	5,385,225
	Female	.037	.035	.034	.033	.031	.031	.030	.029	.028	.027	.026	.025	.024	.023	.022	.021	.020	.018	.183	.271	.054	5,778,636
Cameroon	Male	.040	.038	.036	.035	.034	.033	.032	.030	.029	.028	.027	.027	.026	.025	.024	.023	.022	.022	.192	.231	.048	7,320,234
	Female	.039	.037	.035	.034	.033	.032	.031	.030	.029	.028	.027	.026	.025	.025	.024	.023	.022	.022	.190	.232	.055	7,357,276
Cape Verde	Male	.036	.035	.035	.035	.034	.034	.034	.033	.033	.032	.031	.030	.029	.027	.026	.025	.024	.020	.179	.198	.070	188,871
	Female	.032	.032	.032	.032	.031	.031	.031	.030	.030	.029	.028	.027	.026	.025	.024	.022	.021	.018	.173	.230	.098	204,972
Central African Republic	Male	.037	.035	.033	.032	.032	.031	.030	.030	.029	.028	.028	.027	.026	.025	.024	.024	.023	.022	.205	.230	.050	1,651,857
	Female	.036	.033	.032	.031	.030	.030	.029	.029	.028	.028	.027	.026	.025	.024	.024	.023	.022	.021	.200	.243	.058	1,690,194
Chad	Male	.041	.038	.036	.034	.033	.031	.030	.029	.028	.027	.026	.025	.025	.023	.023	.022	.021	.021	.196	.247	.044	3,536,034
	Female	.039	.036	.035	.033	.032	.030	.029	.028	.027	.026	.025	.025	.024	.023	.022	.021	.021	.020	.198	.252	.053	3,629,989
Chile	Male	.018	.018	.018	.019	.020	.020	.020	.021	.021	.020	.019	.018	.018	.018	.018	.020	.019	.018	.200	.369	.087	7,157,848
	Female	.017	.018	.018	.019	.019	.020	.020	.019	.020	.019	.018	.018	.018	.018	.018	.019	.018	.017	.190	.368	.112	7,350,320
China Mainland	Male	.017	.017	.017	.017	.017	.017	.018	.019	.019	.020	.020	.018	.016	.016	.017	.018	.015	.016	.224	.373	.090	629,862,051
	Female	.016	.016	.016	.016	.016	.016	.017	.018	.018	.019	.020	.017	.016	.015	.016	.018	.015	.016	.225	.370	.104	591,729,727
Colombia	Male	.021	.021	.021	.021	.022	.022	.022	.022	.022	.022	.022	.022	.021	.021	.021	.020	.019	.019	.230	.325	.063	18,485,758
	Female	.020	.020	.020	.020	.021	.021	.021	.021	.021	.021	.021	.021	.020	.020	.020	.019	.019	.018	.221	.340	.076	18,932,532

Appendix 18 cont. Population Distribution (proportions) by Age and Sex for Selected Countries, 1997

COUNTRY	SEX	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18-29	30-59	60+	Total Population
Comoros	Male	.043	.041	.039	.037	.036	.035	.033	.032	.031	.029	.028	.027	.026	.025	.024	.023	.022	.022	.209	.198	.041	293,115
	Female	.042	.040	.038	.037	.035	.034	.033	.031	.030	.029	.028	.026	.025	.024	.024	.023	.022	.021	.201	.215	.043	296,682
Congo	Male	.037	.034	.033	.031	.031	.030	.029	.029	.028	.027	.027	.026	.026	.025	.027	.026	.025	.024	.220	.222	.044	1,270,882
	Female	.035	.033	.031	.030	.029	.029	.028	.028	.027	.026	.025	.025	.024	.024	.026	.025	.024	.023	.214	.233	.060	1,312,316
Costa Rica	Male	.023	.023	.023	.023	.023	.023	.023	.023	.023	.023	.023	.023	.022	.022	.022	.021	.020	.020	.213	.315	.067	1,787,974
	Female	.023	.023	.023	.023	.023	.023	.023	.023	.023	.023	.023	.022	.021	.021	.021	.020	.019	.019	.206	.323	.076	1,746,200
Côte d'Ivoire	Male	.039	.036	.035	.034	.033	.032	.031	.031	.030	.029	.029	.028	.027	.026	.025	.024	.023	.022	.201	.230	.036	7,630,421
	Female	.040	.037	.036	.035	.034	.033	.032	.032	.031	.030	.029	.028	.027	.026	.026	.025	.024	.023	.202	.216	.035	7,355,797
Croatia	Male	.010	.010	.011	.011	.011	.011	.012	.013	.013	.013	.013	.013	.014	.014	.014	.014	.014	.015	.176	.435	.164	2,449,551
	Female	.009	.009	.009	.010	.010	.010	.011	.011	.011	.012	.012	.012	.012	.013	.013	.013	.013	.013	.162	.405	.229	2,577,444
Cuba	Male	.013	.014	.014	.014	.014	.015	.017	.017	.017	.017	.016	.016	.016	.015	.015	.013	.011	.011	.220	.394	.122	5,509,856
	Female	.013	.013	.013	.013	.014	.014	.016	.016	.016	.016	.015	.015	.015	.014	.014	.013	.011	.011	.212	.402	.136	5,489,185
Djibouti	Male	.038	.035	.033	.032	.030	.029	.028	.027	.026	.025	.024	.024	.024	.020	.020	.021	.021	.021	.192	.285	.046	224,091
	Female	.040	.037	.035	.034	.032	.031	.030	.029	.028	.027	.026	.025	.025	.021	.022	.022	.022	.022	.198	.251	.044	210,025
Dominican Republic	Male	.022	.022	.022	.022	.023	.023	.023	.023	.023	.023	.023	.022	.022	.022	.021	.021	.021	.020	.226	.316	.060	4,168,603
	Female	.022	.022	.022	.022	.022	.023	.023	.023	.023	.023	.023	.022	.022	.022	.021	.021	.021	.020	.225	.312	.067	4,059,548
Ecuador	Male	.024	.024	.025	.026	.026	.027	.026	.026	.026	.025	.025	.024	.024	.023	.023	.023	.022	.022	.223	.276	.060	6,029,971
	Female	.023	.023	.024	.025	.025	.026	.025	.025	.025	.024	.024	.023	.023	.022	.022	.022	.022	.021	.226	.285	.067	6,075,153
Egypt	Male	.027	.026	.026	.025	.025	.025	.025	.025	.025	.025	.025	.023	.023	.023	.022	.022	.022	.021	.225	.288	.053	32,747,611
	Female	.026	.025	.025	.025	.024	.024	.024	.024	.024	.024	.025	.023	.023	.022	.022	.022	.022	.021	.212	.299	.064	32,076,855
El Salvador	Male	.028	.028	.027	.027	.027	.027	.027	.027	.026	.026	.025	.025	.025	.025	.024	.024	.024	.024	.219	.247	.069	2,755,845
	Female	.025	.025	.025	.025	.025	.024	.024	.024	.024	.023	.023	.023	.023	.022	.022	.022	.022	.022	.224	.274	.077	2,905,982
Equatorial Guinea	Male	.038	.035	.034	.033	.032	.031	.031	.030	.029	.028	.027	.026	.025	.024	.023	.023	.022	.021	.209	.224	.056	214,844
	Female	.035	.033	.032	.031	.030	.029	.029	.028	.027	.026	.025	.024	.023	.023	.022	.021	.021	.020	.196	.260	.063	227,672
Eritrea	Male	.040	.036	.033	.032	.030	.029	.028	.028	.028	.027	.026	.026	.025	.022	.025	.025	.025	.024	.231	.212	.049	1,800,522
	Female	.040	.036	.034	.032	.030	.029	.028	.028	.027	.027	.026	.025	.025	.022	.024	.024	.024	.024	.216	.234	.047	1,789,165
Estonia	Male	.012	.011	.011	.011	.012	.013	.014	.016	.017	.017	.017	.016	.016	.016	.016	.016	.016	.015	.189	.402	.147	673,194
	Female	.010	.009	.009	.009	.010	.011	.012	.013	.014	.014	.014	.014	.014	.014	.014	.013	.013	.013	.156	.390	.234	771,527

Appendix 18 cont. Population Distribution (proportions) by Age and Sex for Selected Countries, 1997

COUNTRY	SEX	AGE IN YEARS																						Total Population
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18-29	30-59	60+	
Ethiopia	Male	.042	.038	.036	.035	.033	.032	.031	.030	.029	.028	.027	.025	.023	.024	.024	.023	.022	.021	.198	.236	.042	29,405,683
	Female	.041	.038	.036	.035	.033	.032	.031	.030	.029	.028	.027	.025	.023	.024	.024	.023	.022	.021	.196	.232	.047	29,326,894
Fiji	Male	.023	.023	.023	.023	.023	.023	.023	.024	.024	.024	.024	.024	.024	.024	.024	.024	.023	.023	.211	.314	.052	398,433
	Female	.022	.022	.022	.022	.022	.023	.023	.023	.023	.023	.023	.023	.023	.023	.023	.023	.022	.022	.206	.328	.056	394,008
Gabon	Male	.026	.025	.024	.024	.023	.023	.022	.022	.022	.021	.021	.021	.020	.020	.020	.019	.019	.019	.191	.328	.090	599,291
	Female	.026	.025	.024	.024	.024	.023	.023	.022	.022	.022	.021	.021	.020	.020	.020	.020	.019	.019	.195	.321	.089	590,868
The Gambia	Male	.041	.039	.037	.035	.034	.033	.032	.030	.029	.028	.027	.026	.024	.023	.023	.022	.021	.020	.193	.239	.045	622,844
	Female	.041	.038	.036	.035	.034	.033	.031	.030	.029	.028	.026	.025	.024	.023	.022	.022	.021	.020	.197	.244	.040	625,241
Gaza Strip	Male	.049	.046	.044	.043	.041	.040	.038	.035	.032	.029	.027	.025	.025	.025	.024	.023	.022	.021	.193	.183	.035	499,002
	Female	.047	.045	.043	.042	.040	.039	.037	.034	.031	.029	.027	.025	.024	.024	.023	.022	.021	.020	.181	.198	.050	488,867
Georgia	Male	.014	.013	.012	.012	.013	.015	.017	.018	.017	.017	.018	.018	.018	.018	.017	.017	.017	.017	.197	.370	.145	2,445,260
	Female	.012	.011	.010	.010	.011	.013	.015	.015	.015	.015	.015	.016	.016	.015	.015	.015	.015	.015	.168	.383	.201	2,729,382
Ghana	Male	.033	.032	.031	.031	.031	.031	.031	.030	.029	.029	.028	.028	.026	.025	.023	.021	.020	.020	.214	.239	.048	8,972,930
	Female	.032	.031	.031	.030	.030	.030	.030	.029	.029	.028	.028	.027	.026	.024	.022	.021	.020	.020	.213	.249	.051	9,127,773
Guadeloupe	Male	.018	.018	.018	.018	.018	.019	.019	.019	.018	.017	.016	.016	.016	.016	.016	.016	.017	.017	.238	.348	.102	202,608
	Female	.016	.016	.016	.016	.017	.017	.017	.018	.017	.016	.015	.015	.015	.016	.016	.015	.016	.016	.225	.353	.130	209,215
Guatemala	Male	.032	.032	.031	.031	.030	.030	.030	.029	.029	.028	.028	.027	.026	.025	.024	.024	.023	.023	.214	.236	.051	5,816,751
	Female	.031	.031	.030	.030	.029	.029	.029	.028	.028	.027	.027	.026	.025	.024	.023	.023	.023	.022	.211	.247	.057	5,741,656
Guinea	Male	.039	.036	.034	.033	.032	.031	.030	.030	.029	.028	.027	.026	.025	.024	.024	.023	.022	.021	.203	.245	.039	3,637,064
	Female	.037	.035	.033	.032	.031	.031	.029	.029	.028	.027	.026	.025	.024	.023	.023	.022	.021	.020	.199	.254	.050	3,768,311
Guinea Bissau	Male	.037	.035	.033	.032	.031	.031	.030	.029	.028	.027	.027	.026	.025	.025	.024	.024	.023	.022	.221	.225	.044	571,760
	Female	.035	.032	.031	.030	.029	.029	.028	.027	.026	.026	.025	.024	.024	.023	.023	.022	.022	.021	.205	.267	.048	606,824
Guyana	Male	.018	.019	.019	.019	.020	.020	.021	.021	.022	.023	.023	.024	.024	.025	.025	.026	.025	.025	.248	.291	.061	354,882
	Female	.018	.018	.018	.019	.019	.020	.020	.021	.022	.022	.023	.023	.023	.024	.025	.025	.024	.024	.229	.312	.071	351,234
Haiti	Male	.032	.030	.029	.029	.029	.029	.030	.030	.031	.031	.031	.031	.029	.028	.027	.026	.024	.023	.201	.218	.063	3,254,586
	Female	.030	.028	.027	.027	.027	.028	.028	.029	.029	.029	.029	.029	.028	.027	.026	.025	.023	.021	.194	.255	.063	3,356,821
Honduras	Male	.032	.032	.031	.031	.031	.030	.030	.029	.028	.027	.027	.026	.026	.026	.025	.025	.024	.023	.222	.227	.049	2,880,644
	Female	.031	.030	.030	.030	.030	.029	.029	.028	.027	.026	.026	.026	.025	.025	.024	.024	.023	.023	.218	.243	.053	2,870,740

Appendix 18 cont. Population Distribution (proportions) by Age and Sex for Selected Countries, 1997

COUNTRY	SEX	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18-29	30-59	60+	Total Population
India	Male	.025	.024	.024	.024	.023	.023	.023	.024	.023	.023	.023	.022	.022	.022	.022	.021	.021	.021	.216	.306	.068	500,005,495
	Female	.025	.025	.025	.024	.024	.023	.023	.024	.024	.023	.023	.023	.022	.022	.021	.021	.020	.020	.212	.308	.070	466,777,676
Indonesia	Male	.023	.022	.022	.021	.021	.021	.021	.021	.021	.021	.021	.020	.021	.021	.022	.022	.022	.022	.233	.325	.058	104,696,028
	Female	.022	.021	.021	.021	.021	.021	.020	.020	.020	.020	.020	.020	.020	.021	.021	.021	.021	.021	.229	.329	.071	105,078,110
Iraq	Male	.041	.039	.037	.036	.035	.034	.034	.033	.031	.029	.028	.027	.026	.025	.024	.023	.023	.022	.218	.197	.040	11,233,719
	Female	.040	.038	.037	.036	.034	.033	.033	.032	.030	.029	.028	.026	.025	.025	.024	.023	.023	.022	.211	.203	.046	10,985,570
Jamaica	Male	.022	.022	.023	.022	.022	.022	.022	.022	.021	.021	.022	.022	.022	.022	.022	.021	.020	.020	.239	.288	.083	1,300,893
	Female	.021	.021	.021	.021	.021	.021	.021	.021	.020	.020	.021	.021	.021	.021	.021	.020	.019	.019	.230	.301	.100	1,314,689
Kazakstan	Male	.019	.019	.019	.019	.020	.021	.021	.022	.022	.023	.023	.023	.022	.021	.020	.020	.019	.019	.209	.344	.077	8,146,209
	Female	.017	.017	.016	.016	.017	.018	.019	.019	.020	.021	.021	.021	.020	.019	.018	.018	.018	.017	.188	.350	.129	8,752,363
Kenya	Male	.031	.031	.031	.030	.030	.029	.030	.030	.030	.030	.030	.029	.028	.028	.027	.026	.025	.025	.230	.212	.037	14,426,891
	Female	.031	.030	.030	.029	.029	.029	.029	.029	.029	.029	.029	.029	.028	.027	.027	.026	.025	.024	.224	.220	.045	14,376,194
Kyrgyzstan	Male	.025	.024	.024	.024	.025	.027	.027	.027	.027	.027	.027	.026	.025	.024	.023	.022	.021	.020	.213	.272	.072	2,215,507
	Female	.023	.023	.023	.022	.024	.025	.025	.025	.025	.025	.025	.024	.023	.022	.021	.021	.020	.019	.199	.282	.106	2,324,678
Laos	Male	.039	.037	.036	.035	.034	.033	.032	.031	.030	.029	.028	.027	.026	.025	.024	.023	.022	.022	.204	.218	.047	2,527,748
	Female	.037	.035	.034	.033	.032	.031	.031	.030	.029	.028	.027	.026	.024	.023	.023	.022	.021	.021	.200	.241	.054	2,589,211
Latvia	Male	.012	.011	.011	.011	.012	.014	.015	.016	.017	.017	.017	.017	.017	.017	.017	.015	.015	.015	.178	.407	.149	1,123,120
	Female	.010	.009	.009	.009	.010	.011	.012	.013	.013	.014	.014	.014	.014	.014	.014	.013	.012	.012	.147	.393	.242	1,314,529
Lebanon	Male	.023	.022	.022	.022	.021	.021	.020	.020	.020	.020	.020	.021	.021	.022	.022	.023	.023	.024	.285	.238	.089	1,668,581
	Female	.021	.020	.020	.019	.019	.019	.018	.018	.018	.018	.018	.019	.019	.019	.020	.020	.021	.022	.260	.294	.095	1,780,997
Lesotho	Male	.031	.030	.029	.029	.029	.028	.028	.028	.028	.027	.027	.027	.026	.025	.025	.024	.024	.023	.217	.237	.058	980,040
	Female	.029	.028	.028	.027	.027	.027	.027	.026	.026	.026	.026	.025	.025	.024	.024	.023	.022	.022	.205	.256	.075	1,027,774
Liberia	Male	.038	.037	.035	.033	.033	.031	.033	.028	.029	.027	.026	.024	.025	.024	.022	.021	.020	.020	.192	.253	.051	1,318,162
	Female	.039	.037	.035	.034	.033	.032	.033	.028	.030	.028	.026	.024	.025	.024	.023	.022	.020	.021	.196	.237	.053	1,283,906
Lithuania	Male	.014	.013	.013	.013	.014	.015	.016	.016	.016	.017	.017	.017	.017	.017	.016	.015	.015	.015	.189	.396	.138	1,712,193
	Female	.012	.011	.011	.011	.012	.013	.014	.014	.014	.014	.015	.015	.015	.014	.014	.013	.013	.013	.161	.387	.214	1,923,739
Macedonia	Male	.013	.013	.013	.014	.015	.016	.015	.014	.015	.015	.016	.016	.016	.016	.016	.016	.017	.016	.185	.407	.135	1,066,660
(former Yugo.)	Female	.013	.012	.013	.013	.014	.015	.014	.014	.014	.015	.015	.015	.016	.016	.016	.016	.016	.016	.177	.399	.161	1,047,206

Appendix 18 cont. Population Distribution (proportions) by Age and Sex for Selected Countries, 1997

COUNTRY	SEX	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18-29	30-59	60+	Total Population
Madagascar	Male	.040	.037	.035	.034	.033	.032	.031	.030	.029	.028	.027	.026	.025	.024	.024	.023	.022	.021	.204	.228	.048	7,025,577
	Female	.039	.036	.035	.033	.032	.031	.030	.029	.028	.027	.026	.025	.025	.024	.023	.022	.022	.021	.201	.239	.052	7,036,050
Malawi	Male	.038	.035	.033	.033	.032	.032	.031	.031	.030	.030	.029	.029	.028	.027	.027	.026	.025	.024	.223	.200	.037	4,750,059
	Female	.036	.034	.032	.032	.031	.031	.030	.030	.029	.029	.028	.028	.027	.026	.026	.025	.024	.023	.208	.221	.049	4,859,022
Malaysia	Male	.027	.027	.026	.026	.026	.025	.025	.024	.024	.024	.024	.024	.023	.022	.021	.021	.020	.018	.209	.309	.055	10,280,096
	Female	.026	.025	.025	.025	.025	.024	.023	.023	.023	.023	.023	.023	.022	.021	.021	.020	.020	.017	.203	.320	.068	10,211,207
Mali	Male	.049	.044	.040	.038	.036	.034	.033	.031	.030	.029	.027	.026	.025	.025	.024	.024	.023	.022	.197	.193	.049	4,833,839
	Female	.045	.041	.038	.036	.034	.032	.031	.030	.029	.028	.026	.025	.024	.024	.023	.023	.022	.021	.190	.227	.051	5,111,544
Martinique	Male	.017	.017	.017	.016	.016	.016	.016	.016	.016	.016	.015	.015	.015	.015	.014	.015	.015	.016	.238	.361	.117	197,296
	Female	.016	.016	.016	.015	.015	.015	.015	.015	.015	.015	.015	.014	.014	.013	.013	.013	.014	.015	.221	.365	.149	205,688
Mauritania	Male	.045	.042	.039	.038	.036	.035	.034	.032	.031	.030	.029	.027	.026	.025	.024	.024	.023	.022	.202	.205	.032	1,188,141
	Female	.042	.039	.038	.036	.035	.034	.033	.031	.030	.029	.028	.027	.026	.025	.024	.023	.022	.021	.199	.219	.041	1,223,176
Mauritius	Male	.019	.019	.019	.019	.019	.020	.019	.019	.018	.017	.017	.016	.017	.017	.018	.021	.021	.021	.207	.382	.075	570,904
	Female	.018	.018	.018	.018	.019	.018	.018	.018	.017	.016	.016	.015	.016	.016	.017	.020	.020	.020	.197	.383	.099	583,368
Mexico	Male	.026	.026	.026	.026	.025	.025	.025	.025	.025	.024	.024	.024	.024	.023	.023	.023	.023	.022	.233	.266	.062	48,072,941
	Female	.024	.024	.024	.024	.024	.024	.024	.023	.023	.023	.023	.022	.022	.022	.022	.022	.022	.021	.228	.289	.070	49,490,433
Moldova	Male	.017	.016	.015	.015	.016	.017	.018	.019	.020	.020	.021	.021	.021	.020	.020	.018	.018	.018	.189	.370	.112	2,134,589
	Female	.015	.014	.014	.013	.014	.015	.015	.016	.017	.018	.019	.019	.018	.018	.017	.016	.016	.016	.169	.379	.160	2,340,643
Mongolia	Male	.024	.024	.024	.024	.024	.025	.027	.028	.028	.028	.027	.026	.025	.024	.023	.023	.022	.022	.233	.268	.049	1,269,575
	Female	.023	.023	.023	.023	.023	.024	.026	.027	.027	.027	.027	.026	.025	.024	.023	.022	.022	.022	.229	.272	.062	1,268,636
Mozambique	Male	.042	.039	.037	.035	.033	.031	.029	.028	.027	.027	.026	.026	.025	.025	.024	.023	.023	.021	.222	.224	.034	8,873,787
	Female	.039	.037	.035	.034	.033	.031	.029	.028	.027	.027	.026	.026	.025	.025	.024	.023	.023	.021	.202	.243	.043	9,291,689
Namibia	Male	.036	.035	.034	.033	.032	.031	.030	.029	.028	.028	.027	.027	.026	.026	.025	.024	.023	.022	.208	.228	.050	852,424
	Female	.034	.033	.032	.031	.030	.029	.028	.027	.027	.026	.026	.026	.025	.024	.024	.023	.022	.022	.210	.239	.060	874,759
Nepal	Male	.035	.033	.031	.030	.030	.029	.028	.028	.027	.026	.026	.025	.025	.024	.024	.024	.023	.022	.210	.252	.048	11,548,384
	Female	.034	.032	.031	.030	.029	.029	.028	.028	.027	.026	.026	.025	.025	.024	.024	.023	.023	.022	.208	.256	.049	11,092,677
Nicaragua	Male	.033	.032	.032	.032	.031	.031	.030	.030	.029	.029	.028	.028	.027	.027	.026	.025	.024	.023	.219	.224	.038	2,162,353
	Female	.031	.030	.030	.030	.030	.030	.029	.029	.028	.028	.027	.027	.027	.026	.025	.025	.024	.023	.219	.236	.046	2,224,046

Appendix 18 cont. Population Distribution (proportions) by Age and Sex for Selected Countries, 1997

COUNTRY	SEX											AGE IN YEARS													Total
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18-29	30-59	60+	Population
Niger	Male	.050	.045	.040	.038	.036	.034	.033	.031	.030	.028	.027	.026	.025	.024	.024	.023	.022	.021	.193	.211	.041	4,694,658
	Female	.049	.043	.039	.036	.034	.032	.031	.030	.028	.027	.026	.025	.024	.023	.022	.021	.021	.020	.203	.229	.036	4,694,201
Nigeria	Male	.040	.037	.035	.034	.032	.031	.030	.029	.028	.027	.026	.025	.024	.024	.023	.023	.022	.021	.196	.246	.047	54,217,739
	Female	.040	.038	.036	.034	.033	.032	.031	.030	.029	.027	.026	.025	.025	.024	.024	.023	.022	.021	.197	.237	.047	52,911,730
North Korea	Male	.023	.023	.023	.022	.022	.022	.021	.021	.020	.019	.019	.018	.018	.018	.017	.017	.017	.017	.240	.352	.052	12,042,483
	Female	.021	.021	.021	.021	.021	.021	.020	.019	.019	.018	.018	.017	.017	.017	.016	.016	.016	.016	.230	.351	.084	12,274,521
Panama	Male	.022	.022	.021	.022	.022	.022	.023	.022	.022	.022	.022	.022	.021	.021	.020	.020	.020	.019	.225	.313	.078	1,363,852
	Female	.022	.021	.021	.021	.022	.022	.022	.022	.022	.021	.021	.021	.021	.020	.020	.020	.019	.019	.223	.315	.083	1,329,565
Papua New Guinea	Male	.031	.030	.029	.028	.028	.027	.027	.026	.026	.025	.025	.024	.024	.024	.023	.023	.023	.022	.231	.261	.044	2,320,792
	Female	.031	.030	.029	.029	.028	.028	.027	.026	.026	.026	.025	.025	.024	.024	.024	.023	.023	.023	.224	.253	.052	2,175,429
Paraguay	Male	.030	.030	.029	.029	.029	.028	.028	.027	.027	.026	.026	.026	.025	.025	.024	.023	.022	.021	.201	.268	.056	2,844,648
	Female	.029	.029	.028	.028	.028	.027	.027	.027	.026	.026	.025	.025	.024	.024	.023	.023	.022	.021	.200	.274	.065	2,806,986
Peru	Male	.023	.023	.023	.023	.024	.024	.023	.023	.023	.023	.023	.023	.023	.023	.023	.023	.022	.022	.227	.296	.064	12,552,649
	Female	.023	.022	.022	.023	.023	.023	.023	.023	.023	.023	.022	.022	.022	.022	.023	.023	.021	.021	.224	.298	.074	12,396,863
Philippines	Male	.029	.028	.028	.028	.028	.027	.027	.026	.025	.025	.024	.024	.023	.023	.023	.023	.022	.022	.223	.272	.050	37,869,476
	Female	.027	.027	.027	.027	.026	.026	.026	.025	.024	.024	.023	.023	.022	.022	.022	.022	.022	.021	.218	.286	.059	38,234,088
Reunion	Male	.024	.024	.024	.024	.024	.024	.024	.023	.023	.022	.021	.020	.020	.019	.018	.018	.017	.017	.218	.322	.073	341,978
	Female	.022	.023	.023	.023	.023	.022	.022	.022	.021	.020	.020	.019	.018	.017	.017	.016	.016	.016	.212	.333	.095	350,226
Romania	Male	.010	.010	.010	.011	.011	.012	.012	.015	.016	.016	.017	.016	.016	.015	.015	.016	.017	.018	.211	.372	.165	10,437,409
	Female	.009	.009	.009	.010	.010	.010	.011	.013	.015	.015	.015	.015	.014	.013	.013	.015	.016	.016	.194	.368	.208	10,961,705
Russia	Male	.011	.011	.011	.011	.011	.013	.014	.016	.017	.018	.018	.018	.018	.018	.018	.017	.016	.016	.185	.421	.121	69,197,422
	Female	.009	.009	.009	.009	.010	.011	.012	.013	.014	.015	.016	.015	.015	.015	.015	.014	.014	.014	.159	.399	.212	78,789,679
Rwanda	Male	.035	.034	.030	.029	.028	.030	.031	.032	.031	.031	.031	.030	.029	.030	.029	.028	.026	.024	.210	.214	.036	3,835,879
	Female	.034	.033	.029	.029	.028	.030	.030	.031	.030	.030	.030	.029	.029	.029	.029	.028	.026	.024	.203	.219	.049	3,901,658
Senegal	Male	.044	.041	.039	.038	.036	.035	.034	.033	.031	.030	.029	.028	.026	.025	.024	.023	.022	.021	.190	.207	.044	4,580,770
	Female	.041	.039	.037	.036	.035	.033	.032	.031	.030	.029	.028	.027	.026	.024	.023	.022	.021	.020	.194	.229	.043	4,822,776
Serbia	Male	.014	.014	.014	.014	.013	.014	.014	.015	.015	.015	.015	.015	.016	.016	.016	.015	.016	.016	.183	.388	.161	4,969,668
	Female	.013	.013	.013	.013	.012	.013	.013	.013	.014	.014	.014	.014	.014	.014	.014	.014	.015	.015	.170	.380	.204	5,047,726
Sierra Leone	Male	.043	.039	.037	.036	.034	.033	.031	.030	.028	.027	.026	.025	.024	.023	.022	.021	.020	.020	.201	.229	.052	2,377,218
	Female	.041	.038	.036	.035	.034	.032	.030	.029	.028	.026	.025	.025	.023	.022	.022	.021	.020	.020	.203	.241	.049	2,514,328

Appendix 18 cont. Population Distribution (proportions) by Age and Sex for Selected Countries, 1997

COUNTRY	SEX	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18-29	30-59	60+	Total Population
Slovakia	Male	.013	.013	.013	.013	.014	.014	.015	.015	.015	.016	.016	.017	.017	.017	.017	.017	.018	.018	.199	.394	.127	2,625,227
	Female	.012	.012	.012	.012	.013	.013	.014	.014	.014	.014	.015	.015	.015	.016	.016	.016	.016	.017	.182	.385	.179	2,767,789
Slovenia	Male	.009	.009	.009	.010	.010	.011	.011	.012	.013	.013	.013	.013	.014	.014	.015	.015	.016	.016	.185	.440	.152	944,720
	Female	.008	.008	.008	.009	.009	.010	.010	.011	.011	.012	.012	.012	.012	.013	.013	.014	.014	.014	.168	.411	.221	1,001,278
Solomon Islands	Male	.036	.035	.035	.034	.033	.032	.031	.030	.029	.029	.028	.027	.026	.025	.025	.024	.023	.023	.217	.213	.045	216,844
	Female	.036	.035	.034	.033	.033	.032	.031	.030	.029	.028	.028	.027	.026	.025	.025	.024	.023	.023	.216	.214	.046	210,011
Somalia	Male	.041	.036	.033	.030	.029	.031	.032	.032	.030	.027	.025	.024	.023	.023	.022	.021	.020	.019	.227	.234	.041	3,315,514
	Female	.041	.036	.033	.030	.029	.031	.032	.032	.031	.027	.025	.025	.024	.023	.023	.023	.021	.020	.205	.238	.050	3,274,811
South Africa	Male	.026	.026	.025	.025	.025	.024	.024	.023	.023	.023	.023	.023	.023	.022	.022	.022	.021	.021	.222	.300	.058	20,962,238
	Female	.025	.025	.024	.024	.024	.024	.023	.022	.022	.022	.022	.022	.022	.022	.021	.021	.021	.020	.213	.303	.078	21,365,220
Sri Lanka	Male	.018	.018	.018	.018	.018	.018	.018	.019	.019	.019	.019	.020	.020	.021	.021	.021	.022	.020	.222	.345	.088	9,348,019
	Female	.017	.017	.017	.017	.017	.017	.017	.018	.018	.018	.018	.019	.019	.020	.020	.020	.021	.019	.215	.366	.092	9,414,056
Sudan	Male	.038	.036	.035	.034	.033	.033	.032	.031	.028	.027	.028	.027	.026	.025	.024	.024	.023	.022	.212	.220	.041	16,519,468
	Female	.038	.036	.034	.034	.033	.032	.031	.030	.028	.027	.028	.027	.026	.025	.024	.023	.022	.021	.203	.244	.034	16,074,660
Suriname	Male	.023	.023	.023	.023	.023	.023	.023	.023	.023	.023	.022	.022	.022	.021	.021	.020	.020	.020	.232	.298	.071	215,238
	Female	.023	.023	.023	.023	.023	.023	.023	.023	.022	.022	.022	.021	.021	.020	.020	.019	.019	.019	.224	.303	.083	209,331
Swaziland	Male	.041	.038	.036	.035	.034	.033	.033	.031	.030	.029	.027	.026	.026	.025	.024	.024	.023	.022	.214	.214	.035	500,694
	Female	.038	.036	.034	.033	.032	.032	.031	.030	.028	.027	.026	.025	.025	.024	.023	.023	.022	.022	.208	.237	.043	530,906
Syria	Male	.037	.036	.036	.035	.034	.033	.032	.031	.030	.029	.028	.027	.027	.026	.025	.024	.024	.022	.211	.211	.043	8,248,230
	Female	.037	.036	.035	.035	.034	.033	.032	.031	.030	.029	.028	.027	.026	.026	.025	.024	.024	.022	.209	.213	.046	7,889,669
Tajikistan	Male	.032	.029	.028	.027	.027	.030	.033	.032	.030	.030	.030	.029	.027	.025	.024	.023	.021	.021	.208	.235	.059	2,987,232
	Female	.031	.029	.028	.027	.027	.029	.031	.030	.029	.029	.029	.028	.026	.024	.023	.022	.021	.020	.204	.240	.073	3,026,623
Tanzania	Male	.039	.036	.034	.033	.032	.031	.031	.030	.029	.028	.028	.027	.027	.026	.025	.025	.024	.024	.221	.209	.043	14,493,583
	Female	.037	.035	.033	.032	.031	.030	.030	.029	.028	.028	.027	.027	.026	.025	.025	.024	.024	.023	.213	.224	.048	14,967,170
Thailand	Male	.017	.017	.017	.017	.017	.017	.017	.017	.015	.015	.016	.017	.018	.019	.020	.020	.020	.020	.234	.366	.083	29,370,158
	Female	.016	.016	.016	.016	.016	.016	.016	.016	.014	.014	.015	.016	.017	.018	.019	.019	.019	.019	.227	.378	.097	30,080,660
Togo	Male	.044	.041	.039	.037	.036	.035	.034	.033	.031	.030	.029	.028	.027	.026	.025	.024	.023	.022	.204	.199	.033	2,330,105
	Female	.041	.039	.037	.036	.035	.034	.033	.032	.030	.029	.028	.027	.026	.025	.024	.023	.022	.021	.193	.228	.038	2,405,505
Trinidad & Tobago	Male	.015	.015	.016	.016	.017	.017	.017	.018	.019	.021	.022	.024	.024	.024	.024	.023	.021	.021	.185	.370	.090	577,591
	Female	.015	.016	.016	.017	.017	.018	.017	.018	.019	.021	.023	.024	.024	.023	.023	.023	.021	.020	.172	.364	.109	552,746

Appendix 18 cont. Population Distribution (proportions) by Age and Sex for Selected Countries, 1997

COUNTRY	SEX	AGE IN YEARS																					Total
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18-29	30-59	60+	Population
Tunisia	Male	.023	.023	.023	.023	.023	.022	.022	.021	.022	.023	.024	.024	.023	.022	.023	.023	.022	.021	.227	.285	.081	4,658,302
	Female	.022	.022	.022	.022	.022	.021	.021	.020	.021	.022	.023	.023	.023	.022	.022	.022	.022	.021	.224	.301	.081	4,524,795
Turkmenistan	Male	.028	.027	.027	.026	.027	.028	.028	.028	.028	.028	.028	.027	.026	.024	.023	.022	.021	.021	.217	.266	.051	2,083,239
	Female	.026	.025	.025	.024	.025	.026	.027	.027	.026	.026	.026	.026	.024	.023	.022	.021	.020	.020	.206	.280	.074	2,142,112
Uganda	Male	.042	.040	.039	.037	.036	.035	.034	.033	.032	.031	.030	.029	.027	.026	.025	.024	.023	.022	.200	.199	.036	10,309,459
	Female	.042	.040	.038	.037	.036	.035	.034	.033	.032	.031	.030	.029	.027	.026	.025	.024	.023	.021	.196	.203	.038	10,295,415
Ukraine	Male	.012	.012	.011	.011	.012	.013	.014	.014	.015	.016	.017	.017	.017	.017	.016	.016	.016	.016	.182	.408	.148	23,516,163
	Female	.010	.010	.009	.009	.010	.011	.011	.012	.013	.013	.014	.014	.014	.014	.014	.013	.013	.013	.154	.392	.235	27,168,472
Uruguay	Male	.018	.017	.017	.017	.017	.017	.017	.018	.017	.017	.017	.017	.015	.016	.017	.017	.018	.018	.196	.344	.152	1,590,527
	Female	.016	.016	.016	.016	.016	.016	.016	.016	.016	.015	.015	.015	.014	.015	.015	.016	.016	.016	.181	.347	.193	1,671,180
Uzbekistan	Male	.028	.027	.027	.026	.027	.028	.028	.028	.028	.028	.028	.027	.026	.024	.023	.022	.021	.021	.208	.266	.057	11,807,968
	Female	.027	.026	.026	.025	.026	.027	.027	.026	.026	.027	.027	.026	.025	.023	.022	.021	.020	.020	.203	.269	.079	12,052,484
Venezuela	Male	.024	.024	.024	.024	.024	.026	.026	.023	.023	.023	.022	.022	.022	.022	.022	.022	.021	.021	.222	.302	.060	11,298,958
	Female	.023	.023	.023	.023	.023	.024	.025	.022	.022	.022	.021	.021	.021	.021	.021	.021	.021	.021	.219	.314	.070	11,097,449
Vietnam	Male	.023	.023	.023	.024	.025	.026	.026	.027	.026	.024	.023	.025	.026	.026	.025	.023	.022	.022	.225	.274	.063	36,834,391
	Female	.021	.021	.021	.022	.023	.023	.024	.024	.023	.022	.021	.023	.024	.024	.023	.021	.020	.020	.215	.299	.086	38,289,489
West Bank	Male	.037	.037	.036	.036	.035	.035	.034	.032	.028	.027	.026	.025	.025	.024	.023	.023	.022	.022	.214	.221	.040	756,222
	Female	.036	.036	.035	.035	.034	.034	.033	.031	.028	.026	.025	.024	.024	.023	.022	.022	.021	.021	.201	.232	.057	739,461
Yemen	Male	.043	.040	.039	.037	.036	.034	.033	.033	.031	.030	.029	.027	.026	.025	.024	.023	.022	.021	.220	.190	.037	7,038,728
	Female	.042	.039	.038	.036	.035	.033	.032	.031	.029	.028	.027	.026	.025	.024	.023	.022	.022	.021	.207	.211	.050	6,933,749
Zaire	Male	.045	.041	.039	.037	.036	.034	.033	.032	.031	.030	.029	.028	.027	.025	.024	.023	.023	.022	.205	.202	.036	23,372,417
	Female	.043	.040	.037	.036	.034	.033	.032	.031	.030	.029	.028	.027	.026	.025	.024	.023	.022	.021	.200	.215	.046	24,067,945
Zambia	Male	.042	.039	.037	.036	.035	.034	.034	.033	.032	.032	.031	.030	.029	.028	.027	.026	.025	.025	.205	.183	.037	4,639,894
	Female	.040	.038	.036	.035	.034	.033	.033	.032	.031	.031	.030	.029	.028	.027	.026	.025	.024	.024	.198	.201	.042	4,710,081
Zimbabwe	Male	.031	.030	.029	.029	.029	.030	.030	.030	.031	.030	.030	.029	.028	.028	.027	.029	.027	.026	.238	.196	.042	5,682,082
	Female	.030	.029	.028	.028	.029	.029	.029	.030	.030	.030	.029	.029	.028	.027	.026	.029	.027	.026	.228	.216	.044	5,741,093

Appendix 19. Sample Calculation of Weighted Average Adult Equivalent Ratios for Guest Categories

Steps:
1) Find proportional distribution of population by age and sex for country of interest in Appendix 17.
2) Calculate the population in each age/sex category by multiplying the proportion of the population in each age/sex category by the total population by sex (2,880,664 males and 2,870,740 females for Honduras).
3) Calculate daily caloric requirements for each age/sex category (see section IV.1.2.).
4) Calculate the AER for each age/sex category (see section IV.1.). The caloric requirement for an adult equivalent in Honduras is 2858.
5) Calculate the weight of each age/sex category within each guest age/sex category. Divide the population in each age/sex category by the total population in each guest age/sex category. For example, 10.3 percent (.103) of Honduran children 0-4 years old are one-year-old males (90,854/883,643).
6) Multiply the AER for each age/sex category by its weight, and sum for weighted average AER for each guest age/sex category.

		AGE IN YEARS																				
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18-29	30-59	60+
Step 1																						
Proportion of	Male	.032	.032	.031	.031	.031	.030	.030	.029	.028	.027	.027	.026	.026	.026	.025	.025	.024	.023	.222	.227	.049
population	Female	.031	.030	.030	.030	.030	.029	.029	.028	.027	.026	.026	.026	.025	.025	.024	.024	.023	.023	.218	.243	.053
Step 2																						
Population	Male	92,513	90,854	89,857	89,057	88,184	87,252	85,419	82,724	80,065	78,280	77,018	75,759	74,620	73,550	72,397	70,968	69,282	67,368	639,578	654,668	141,231
	Female	88,661	87,321	86,458	85,760	84,978	84,138	82,444	79,925	77,429	75,778	74,473	73,327	72,305	71,345	70,256	68,857	67,178	65,234	624,980	696,697	153,196
Step 3																						
Caloric	Male	772	1172	1410	1560	1690	1810	1822	1901	1948	2023	2062	2168	2199	2342	2414	2511	2713	2813	2843	2804	2309
requirement	Female	712	1147	1310	1440	1540	1630	1619	1657	1711	1767	1770	1838	1912	1988	2130	2186	2270	2280	2091	2116	1890
Step 4																						
Adult equivalent	Male	0.270	0.410	0.493	0.546	0.591	0.633	0.638	0.665	0.682	0.708	0.722	0.759	0.769	0.820	0.845	0.878	0.949	0.984	0.995	0.981	0.808
ratio (AER)	Female	0.249	0.401	0.458	0.504	0.539	0.570	0.566	0.580	0.599	0.618	0.619	0.643	0.669	0.696	0.745	0.765	0.794	0.798	0.732	0.740	0.661
Step 5																						
Weight w/in	Male	0.105	0.103	0.102	0.101	0.100	0.078	0.077	0.074	0.072	0.070	0.069	0.068	0.174	0.172	0.169	0.166	0.162	0.157	0.446	0.456	0.098
guest category	Female	0.100	0.099	0.098	0.097	0.096	0.076	0.074	0.072	0.070	0.068	0.067	0.066	0.174	0.172	0.169	0.166	0.162	0.157	0.424	0.472	0.104
Step 6																						
Weighted average		0.445			(Children 0 - 4 yrs)		0.642				(Children 5 - 11 yrs)			0.872				(Males 12 - 17 yrs)		0.970		(Males 18+ years)
4AER by category														0.743				(Females 12 - 17 yrs)		0.728		(Females 18+ years)

Appendix 20.   **Dietary File**

HHID 1	Meal 3	Abst1* 2	18M 3	Dnum 8	Dish 9	Aecal1* 26	Totadeq 27	Abaeca1* 28	Gstcal1* 29	Tgstadeq 30	Dshadeq 31
21	1	1	0	1	1003	1.18	7.36	1.18	0	0	6.18
21	1	1	0	1	1003	1.18	7.36	1.18	0	0	6.18
21	1	1	1	2	1403	1.18	7.36	1.18	1.014	1.014	7.194
21	1	1	1	2	1403	1.18	7.36	1.18	1.014	1.014	7.194
21	1	1	1	2	1403	1.18	7.36	1.18	1.014	1.014	7.194
21	2	0	0	1	2170	0	7.36	0	0	0	7.36
21	2	0	0	1	2170	0	7.36	0	0	0	7.36
21	2	0	0	1	2170	0	7.36	0	0	0	7.36
21	2	0	0	2	2040	0	7.36	0	0	0	7.36
21	2	0	0	3	1403	0	7.36	0	0	0	7.36

There will be as many variables as there are maximum number of members/guests in the data.

Appendix 21. Command File Containing Nutritional Value of Foods

(Taken from USAID, *Commodity Reference Guide*, Washington, D.C.USAID/FFP.

```
Do if (product = 90)
   Compute calcon = 3.8
   Compute prtcon = .18
   Compute vitacon = .6
   Compute fatcon = .06
end if.
```

Appendix 22.   **Dietary File**

HHID 1	Meal 2	Dnum 8	Dish 9	Linetyp 16	Product 17	Norecipe 22	Wgt1 25	Dshadeq 31	Calfact 32	Cal 33
21	1	1	1003	1	3	0	1051.34	6.18	2.037	.
21	1	1	1003	2	1	0	690.854	6.18	3.6	2487
21	1	2	1403	1	403	0	.	7.194	.	.
21	1	2	1403	2	403	0	.	7.194	.	.
21	1	2	1403	2	260	0	119.746	7.194	2.8333	339.276
21	2	1	2170	1	170	0	5	7.36	72	.
21	2	1	2170	2	170	0	5	7.36	72	360
21	2	1	2170	2	240	0	81.62	7.36	8.000	652.96
21	2	2	2040	1	40	1	85.03	7.36	1.60	.
21	2	3	1403	1	403	0	.	7.36	.	.

Appendix 23.   **Aggregated Dietary File**
(aggregated, case = dish)

HHID 1	Meal 2	Dish 3	Dshadeq 4	Dshcal 5	Dshcalae 6
21	1	1003	6.18	2487	402.427
21	1	1403	7.194	339.276	47.161
21	2	2170	7.36	1012.92	137.25
21	2	2040	7.36	.	.

Appendix 24.   **Aggregated Dietary File**
(aggregated, case = household)

HHID 1	Daycalae	Numdays
21	2816.33	3
22	2140	2
23	2948.33	3
24	1784	2

Appendix 25.   **Aggregated Dietary File**
(aggregated, case = Household)

HHID 1	Avecalae	Numdays	Caladeq	Calcat
21	2816.33	3	98.53	3
22	2140	2	74.88	2
23	2948.33	3	103.15	4
24	1784	2	62.42	2

Appendix 26. List of Title II Generic Indicators

Category	Level	Indicator
Health, nutrition , and MCH	Impact	% stunted children 24-59 months (height/age Z-score)
		% underweight children by age group (weight/age Z-score)
		% infants breastfed w/in 8 hours of birth
		% infants under 6 months breastfed only
		% infants 6-10 months fed complementary foods
		% infants continuously fed during diarrhea
		% infants fed extra food for 2 weeks after diarrhea
	Annual	% eligible children in growth monitoring/promotion
	monitoring	% children immunized for measles at 12 months
		% of communities with community health organizations
		% children in growth promotion program gaining weight in past 3 months (by gender)
Water and sanitation	Impact	% infants with diarrhea in last two weeks
		Liters of household water use per person
		% population with proper hand washing behavior
		% households with access to adequate sanitation (also annual monitoring)
	Annual	% households with year-round access to safe water
	monitoring	% water/sanitation facilities maintained by community
Household food consumption	Impact	% households consuming minimum daily food requirements
		Number of meals/snacks eaten per day
		Number of different food/food groups eaten
Agricultural productivity	Impact	Annual yield of targeted crops
		Yield gaps (actual vs. potential)
		Yield variability under varying conditions
		Value of agricultural production per vulnerable household

		Months of household grain provisions
		% of crops lost to pests or environment
	Annual	Annual yield of targeted crops
	monitoring	Number of hectares in which improved practices adopted
		Number of storage facilities built and used
Natural resource	Impact	Imputed soil erosion
management		Imputed soil fertility
		Yields or yield variability (also annual monitoring)
	Annual	Number of hectares in which NRM practices used
	monitoring	Seedling/sapling survival rate
FFW/ CFW roads	Impact	Agriculture input price margins between areas
		Availability of key agriculture inputs
		Staple food transport costs by seasons
		Volume of agriculture produce transported by households to markets
		Volume of vehicle traffic by vehicle type
	Annual	Kilometers of farm to market roads rehabilitated
	monitoring	Selected annual measurements of the impact indicators

Appendix 27.   Setting Food Diversity Targets

An increase in the average number of different foods or food groups consumed provides a quantifiable measure of improved household food security. However, to use this indicator to assess improvements in food security, the changes in consumption diversity must be compared to some meaningful target level of diversity. Unfortunately, data on 'ideal' or 'target' levels of diversity are usually not available.

Several options are available to determine appropriate targets. One method is to use the consumption patterns of wealthier households as targets, with the assumption that poorer households will diversify their food expenditures as incomes rise, and thereby mirror the consumption patterns of wealthier households. Because projects using the dietary diversity indicator usually include interventions aimed at household income, baseline surveys generally collect some income or economic status information, in addition to the dietary data. If income data are available, the sample should be divided into four income groups (quartiles of income), and the average number of food groups consumed should be calculated for the richest income quartile. The average dietary diversity in the richest 25 percent of households can then serve as a target level of dietary diversity for the purpose of performance monitoring. Where income data are not available, income groups can be defined using proxies, such as possession of assets or other items found to be highly correlated with income in the project population.

In the absence of income or economic data from the baseline survey, a food-diversity target can be established by taking the average diversity of 25 percent of households with the highest diversity (upper quartile of diversity). Because most food security projects aim to increase household incomes as a means to improve food security, income-based targets are preferable to this diversity-based target.

Instructions on how to code income quantities and calculate average diversity using SPSS appear below. The program can also be used to calculate diversity quartiles, by substituting diversity for income. In either case, the descriptive statistics need to be run on the diversity variable. Using the Windows 95 version of SPSS, locate in the pull down menu TRANSFORM. "Rank Cases" creates new variables containing ranks, normal, and savage scores, as well as percentile values for numeric variables. New variable names and descriptive variable labels are automatically generated by SPSS, based on the original variable name and the selected measure(s). A summary table lists the original variables, the new variable, and the variable labels.

Cases can be ranked either in ascending or descending order. Organize rankings into subgroups by selecting one or more grouping variables for the By list. Ranks are computed within each group. Groups are defined by the combination of values of the grouping variables. For example, if you select GENDER and MINORITY as grouping variables, ranks are computed for each combination of GENDER and MINORITY.

Use the "Rank Types" button to select multiple ranking methods. A separate ranking variable is created for each method. Ranking methods include simple ranks, savage scores, fractional ranks, and percentiles. Rankings can also be created based on proportion estimates and normal scores.

RANK
 VARIABLES=3Dincome (A) ⁄RANK ⁄NTILES (4) ⁄PRINT=3DYES
 ⁄TIES=3DMEAN

Example:

<u>DATA FILE</u>

Food Group „	Household ID # (HHID#)							
	1	2	3	4	5	6	7	8
Cereals	1	1	1	1	1	1	1	1
Roots⁄tubers	0	0	1	0	0	0	0	1
Milk⁄milk products	0	1	1	1	0	0	1	0
Eggs	0	1	1	0	1	0	1	1
Meat⁄offal	0	1	1	1	0	0	1	1
Fish⁄seafood	0	0	0	0	1	0	0	0
Oil⁄fat	1	1	1	1	1	1	1	1
Sugar⁄honey	1	1	1	1	1	1	1	1
Fruits	0	0	1	0	0	0	1	0
Vegetables	1	1	1	1	1	0	1	1
Other (spices, sodas, etc)	0	1	1	1	1	1	1	1
DIVERSE (total # of food groups consumed)	4	8	10	7	7	4	9	8
INCOME	250	700	1500	540	630	180	980	760

Frequency variable = INCOME ⁄format=notables ⁄ntiles=4.

<u>FREQUENCY COMMAND OUTPUT</u>

INCOME

Percentile	Value	Percentile	Value	Percentile	Value
25	322.5	50	665.0	75	925.0

<u>IF STATEMENT TO CREATE QUARTILE VARIABLE</u>:

If (INCOME <= 322.5) QUARTILE = 1.
If (INCOME > 322.5 and INCOME <= 665.0) QUARTILE = 2.
If (INCOME > 665.0 and INCOME <= 925.0) QUARTILE = 3.
If (INCOME > 925.0) QUARTILE = 4.

DATA FILE RESULT

HHID#	1	2	3	4	5	6	7	8
DIVERSE	4	8	10	7	7	4	9	8
INCOME	250	700	1500	540	630	180	980	760
QUARTILE	1	3	4	2	2	1	4	3

CALCULATE AVERAGE DIVERSITY (DIVERSE) FOR HOUSEHOLDS IN QUARTILE 4

Select if (QUARTILE = 4).
Descriptives variable DIVERSE.

OUTPUT OF DESCRIPTIVES COMMAND

Number of valid observations (listwise) = 2.00

Variable	Mean	StdDev	Minimum	Maximum	Valid N
DIVERSE	9.50	.71	9	10	2

CALCULATE AVERAGE DIVERSITY FOR HOUSEHOLDS IN SAMPLE

Descriptives variable DIVERSE.

OUTPUT OF DESCRIPTIVES COMMAND

Number of valid observations (listwise) = 8.00

Variable	Mean	StdDev	Minimum	Maximum	Valid N
DIVERSE	7.13	2.17	4	10	8

The average dietary diversity among the 25 percent richest households is 9.50. Current diversity for the sample as a whole is 7.13. The PVO can use this data to establish baseline (7.13) and target (9.50) diversity levels for the target population.